

Public Utilities

FORTNIGHTLY



May 13, 1937

A LETTER AND A POSTAGE STAMP

By Alexandre M. Mahood

« »

The Electric Tax and Rate Millstones

By Ernest R. Abrams

« »

Sunshine and Shadows of a Utility
Commissioner's Life

By Will M. Maupin

« »

78

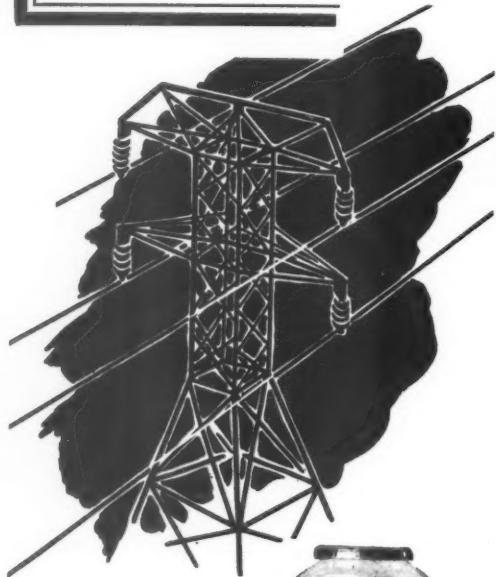
TVA As an Aid to Navigation

By Frank M. Patterson

PUBLIC UTILITIES REPORTS, INC.
PUBLISHERS

How to make

Daylight Saving Time Increase your load



At right the Brides' Special . . . Decorated Electric Table Model . . . a \$5.75 value for a limited time at \$4.95. Kitchen Range Model . . . a \$3.25 value for \$2.95.



BREWING COMPLETED WITHOUT
REMOVING GLASS FROM STOVE

Tie-in with appliance
that make your line
more profitable

STEAL a march on daylight saving time! With an organized plan you can install a Silex glass coffee maker in every home on your lines. Silex glass coffee makers can be your biggest appliance seller—boost your load—to compensate for the decreased use of electricity during the summer.

Silex advertising and promotions have prepared the way for you—have made it popular. Your users are half sold. Then—Silex has prepared an individual selling plan suited to your promotion plans. Whether you merchandise or not, write for it today.

THE SILEX CO., DEPT. 513

Hartford, Connecticut
In Canada, The Silex Co., Ltd.,
Ste. Therese, Quebec.

Silex glass coffee makers, made in both gas & electric models, have Pyrex brand glass, guaranteed against heat breakage.

Genuine **SILEX**
COFFEE MAKER
TRADE MARK REGISTERED U.S. PAT. OFF.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

ne

iance
line

light s
organiz
glass c
on yo
akers c
seller—
nsate f
icity du

tions ha
have ma
half so
an inc
your pr
you me
today.

T. 513
ut
Ltd.,

oth gas

, guarante

ed.

U.S. Pat. Off.

ent)

ent)

★ ★ . FACTS . ★ ★

at Help Cut Tire Costs for Public Utilities

When you purchase new tires for your trucks—do you know how much mileage to expect? Do you know exactly the size and type of tire to expect? Do you know what your present tire costs are, or what they should be?

To get facts for tire buyers, Goodrich engineers have developed "The Truck Tire Calculator," a simple, scientific "gadget" that enables Goodrich dealers to put money-saving information at buyer's fingertips.



By answering these important questions of tire selection, this device alone has saved many thousands of dollars for truck owners.



New Tire Invention Cuts Costs to the Bone

When engineers discovered that 80% of all premature failures occur in the tire sidewall, Goodrich went to work on this "Failure Zone" and developed a new invention that gives tires Triple Protection against sidewall breaks.

Here's how it works:

1. **PLYFLEX** — distributes stresses throughout the tire — prevents ply separation — checks local weakness.
2. **PLY-LOCK** — protects the tire from breaks caused by short plies tearing loose above the bead.
3. **100% FULL-FLOATING CORD** — eliminates cross cords from all plies — reduces heat in the tire 12%.

"The Truck Tire Calculator" plus Goodrich Triple

Protected Silvertowns plus "The Practical Guide for Tire Combinations" — a useful handbook on tire maintenance — will save you plenty of money.

Your service man or the executive in your organization responsible for tires should have this calculator and this guide. If you will ask your secretary to write his name and address on the margin, we will forward these money-saving tools free. We offer them only to users and prospective users of Goodrich Triple Protected Silvertowns without charge or obligation.



Goodrich *Triple Protected* Silvertowns

SPECIFY THESE NEW SILVERTOWN TIRES FOR TRUCKS AND BUSES

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

ay 1

Editor—HENRY C. SPURR
Associate Editors—ELLSWORTH NICHOLS, FRANCIS X. WELCH
Contributing Editor—OWEN ELY

Public Utilities Fortnightly



VOLUME XIX

May 13, 1937

NUMBER 10

Contents of previous issues of PUBLIC UTILITIES FORTNIGHTLY can be found by consulting the "Industrial Arts Index" in your library.

Utilities Almanack	593	
The Inundation	594	
A Letter and a Postage Stamp	595	
The Electric Tax and Rate Millstones	604	
Sunshine and Shadows of a Utility Commissioner's Life..	Will M. Maupin.....	615
TVA As an Aid to Navigation	Frank M. Patterson..	619
Financial News and Comment	Owen Ely	626
What Others Think	632	
The Mystery of the Elusive Federal Power Policy		
Two State Reports on Regulation and Operations		
The March of Events	641	
The Latest Utility Rulings	650	
Public Utilities Reports	655	
Titles and Index	656	

Advertising Section

Pages with the Editors	6
In This Issue	10
Remarkable Remarks	12
Industrial Progress	51
Index to Advertisers	78, 80

G This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouth-piece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Publication Office CANDLER BUILDING, BALTIMORE, MD.
Executive, Editorial, and Advertising Offices MUNSEY BUILDING, WASHINGTON, D. C.

PUBLIC UTILITIES FORTNIGHTLY, a magazine dealing with the problems of utility regulation and allied topics, including also decisions of the regulatory commissions and courts, preprinted from *Public Utilities Reports, New Series*, such Reports being supported in part by those conducting public utility service, manufacturers, bankers, accountants, and other users. Entered as second-class matter April 29, 1915, under the Act of March 3, 1879. Entered at the Post Office at Baltimore, Md., Dec. 31, 1936; copyrighted, 1937, by Public Utilities Reports, Inc. Printed in U.S.A. ANNUAL SUBSCRIPTION, \$15.00

PRICE, 75 CENTS A COPY

MAY 13, 1937

Save Repair Money with **OKOLAST**

(a tree wire armored with brake lining)

Okolast is a tree wire which will stand the wear and tear in trees. It is an *armored* tree wire designed for all conditions of service.

Okolast tree wire has a unique, simple construction which appeals to the practical plant man.

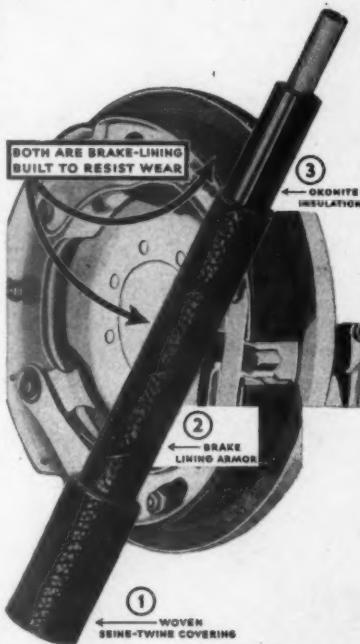
There are only **3** materials besides the conductor:

1. The tough, specially saturated seine twine will outwear any weather-proof or other kind of braid used as a covering.

2. The brake lining type of armor tape will be found by test to be the best for resisting abrasion.

3. The inimitable Okonite rubber insulation means a permanently durable, safe insulation.

Samples and prices of **Okolast Tree Wire** will gladly be furnished upon request.



THE OKONITE COMPANY
PASSAIC, NEW JERSEY

OKONITE QUALITY CANNOT BE WRITTEN INTO A SPECIFICATION

Pages with the Editors

IT happened quite recently at a provincial version of those Town Hall Meeting open forums, which seem to be growing so popular nowadays, wherein the principal speakers jump all over one another and the audience jumps all over the speakers. The subject of the discussion was public ownership of utilities or something along that line, but one of the speakers devoted a great deal of his time to denouncing utility regulation in general as a "futile and tragic failure," and the local state commission in particular, as a "bunch of stuffed shirts."

It so happened that a subordinate official of the state commission was in that audience and during the questioning period he asked the speaker—a local champion of consumers' rights—if he had ever had any dealings with the local commission.

"No," he answered, "and I never want to have any dealings with it."

UNDER continued questioning, it developed that he had never communicated with, much less appeared in person before, the commission, and actually did not know the names of the members of the state body he had assailed so vigorously. Exasperated, the speaker finally exploded somewhat along these lines. (We quote from memory, but we hope correctly in substance.)



ERNEST R. ABRAMS

We can't have our utility cake in the form of taxes and eat it in the form of rates.

(SEE PAGE 604)

"My criticism is based entirely on the results. By their fruits ye shall know them. Utility rates are too high in this state and that is substantially the only thing that this commission was set up to look after. It has failed in that job, therefore it is a failure. In answer to the gentleman's question, I personally have never appealed to this commission because I knew in advance it would be useless."

Of course, honest opinions may vary widely about what constitutes a reasonable utility rate. The particular commission in question (which, for obvious reasons, we shall not name) had, after a few attempts to reduce electric and telephone rates by formal order, resorted to conference settlements rather than risk the uncertainties of litigation. In this it had been quite successful, as such matters go. In truth, the average electric rates in that state, according to the Federal Power Commission studies, are now well below the national average, but to those who seem almost at times to consider that any rate charged by private enterprise is unreasonably high, such evidence would not necessarily be convincing. The entire incident is mentioned here only to point out how often the state commissions are criticized by those who don't go near them, don't write to them, make no attempt to understand their jurisdiction limitations or procedural problems, and don't even know the commissioners' names.



© Harris & Ewing

ALEXANDER M. MAHOD

Citizens can get plenty of service from their commission for the asking.

(SEE PAGE 595)

MAY 13, 1937



FREE TO BUYERS OF PRINTING . . .

50¢ to anyone else

e re-
them,
that
com-
ailed
swer
have
use I

idely
tivity
stion
not
duce
order,
than
is it
go-
that
Com-
na-
most
ed by
such
in-
here
om-
t go
at-
imi-
on't

NOW combined in one portfolio are literally hundreds of helpful ideas for every man who buys paper and printing. This portfolio is the result of years of close contact with hundreds of American business firms. It is offered free to advertising managers and other buyers of printing (50¢ to anyone else). If you are responsible for the purchase of paper in any way, we want you to be sure to have this complete Working Kit.

The 1936 Working Kit is a small library in one set of covers. In condensed form contains the fundamentals discovered in the famous Hammermill Survey of Business practice—a research which cost thousands

of dollars and required two years to complete.

Why not dictate a note immediately or have your secretary send in the coupon below for the Hammermill 1936 Working Kit of Letterheads and Printed Forms? Sent promptly and gladly.

Hammermill Paper Co., Erie, Pa.

P.U.F.-5-13

Gentlemen: Please send me FREE your new 1936 Working Kit of letterheads, printed forms and envelopes. (To students or outside U.S., 50¢)

Name _____

Position _____

(Please attach coupon to your business letterhead)

IN this issue we are fortunate in having two state commissioners give their points of view—ALEXANDER M. MAHOOD of the West Virginia Public Service Commission, and WILL M. MAUPIN of the Nebraska State Railway Commission. (Neither of these commissions was the one mentioned above.) The West Virginia commissioner's article (starting on page 595) gives an indication of how easy it is for the humblest private citizen to set the regulatory machinery in motion with just "a letter and a postage stamp." And, incidentally, if anyone thinks that utility rates engage the exclusive attention of the average state commissioner, he should drop over at his state house some day and be disillusioned. Service disputes, security issues, rate discrimination, territorial fights—all are part of a day's work for most state regulatory bodies.

COMMISSIONER MAHOOD is probably better known to FORTNIGHTLY readers as the president of the National Association of Railroad and Utilities Commissioners, a post to which he was recently elevated following the retirement of the Honorable Thomas E. McKay, former member of the Utah commission. Born and raised in Princeton, W. Va., COMMISSIONER MAHOOD received his education at Fishburne Military School, Waynesboro, Va., and at the University of Virginia (LL.B. '22). He practiced law in his home town of Princeton as private counselor, city attorney, and public prosecutor. In 1930 he was appointed to the West Virginia Public Service Commission by a Republican governor and reappointed in 1935 by a Democratic governor. Also in 1935 he was elected second vice president of the National Association at its annual convention at Nashville, succeeding to the first vice presidency and, finally, the presidency in due course.



WILL M. MAUPIN

Does service as a commission member invariably turn one into a philosopher?

(SEE PAGE 615)

MAY 13, 1937



FRANK M. PATTERSON

What does TVA mean to the men who go down to the Tennessee in ships?

(SEE PAGE 619)

COMMISSIONER MAUPIN, whose article "Sunshine and Shadows of a Utility Commissioner's Life" begins on page 615, is as widely known for his wit and literary talent as for his regulatory work. Solons at Lincoln still chuckle over the time when a political adversary proposed a state bill to restrict the membership of the Nebraska commission to lawyers. WILL MAUPIN didn't mind so much the fact that the bill might be aimed at his own job, but his professional pride was stung. He had started as a boy in the newspaper game and had risen to be an ornament to Nebraska journalism—for years an editor on William Jennings Bryan's *Commoner*. Was a lawyer better qualified for public office than the journalist? Perish the thought! Whereupon MAUPIN proposed a bill to restrict the commission membership to professional journalists. Result: Nebraska legislators laughed both bills to death and are still laughing. Born the son of a minister in Callaway county, Mo., in 1863, COMMISSIONER MAUPIN still takes time off occasionally from routine official duties to show there is snap left in his pen.

THE two other feature articles in this issue are by writers who have previously contributed to the FORTNIGHTLY—FRANK M. PATTERSON, engineering editor of Chicago, and ERNEST R. ABRAMS, financial analyst of New York.

THE next number of this magazine will be out May 27th.

The Editors

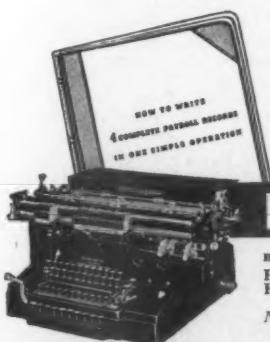


PAYROLL MACHINE DELIVERS QUADRUPLETS

NEW REMINGTON RAND "85" PRINTS 4 FORMS SIMULTANEOUSLY.
Meet increased payroll accounting requirements and costs with the extra economies of this *completely electrified* Payroll Machine. Save time, personnel, and money by preparing these four payroll records simultaneously—(1) wage record (2) deduction stub (3) pay check or envelope (4) payroll journal. Electrified printing assures uniform printing on originals and as many copies as desired.

The extra speed of the Remington Rand "85" comes from complete electrification of numeral, alphabet, other operating keys, and the carriage return. Extra flexibility permits changes in accounting procedure, adding information such as "Old Age Benefits," without replacement or rebuilding costs. Extra completeness of "85" eliminates necessity of auxiliary addressing or check protecting equipment. The net amount of each check is mechanically computed and printed. Totals of gross earnings, deductions, net amounts are accumulated progressively. There's no separate writing, adding, auditing and balancing.

Just off the press, this valuable book gives latest factual information on all 4 methods of payroll procedure. No accounting department should be without one. Save hundreds of dollars. Mail this coupon today.



**FREE NEWEST MANUAL ON
PAYROLL ACCOUNTING**

REMINGTON RAND INC., BUFFALO, N. Y.

Please send me free copy of your new manual "How to Handle 4 Payroll Records in One Operation."

Name.....

Address.....

In This Issue



In Feature Articles

Inexpensive commission procedure for adjusting individual grievances, 595.
Character of evidence to be considered in rate proceedings, 596.
Rate regulation important state commission function, 597.
West Virginia's "Informal Complaint Rule," 598.
Effectiveness of informal complaint procedure, 600.
Adequate appropriation results in effective regulation, 603.
Electric tax and rate millstones, 604.
Basis for taxation, 605.
Tax crises and their results, 606.
Federal electric utility taxes, 611.
Taxes levied by local governments, 611.
Uncle Sam's ultimate objectives in the power field, 612.
Tax collection and public service regulation, 613.
Sunshine and shadows of a utility commissioner's life, 615.
Reactions to commission decisions, 616.
State bills affecting Nebraska State Railway Commission, 617.
Personal satisfaction in being a commission member, 617.
TVA as an aid to navigation, 619.
Economies of inland rivers navigation, 620.
Navigation on the Tennessee, 621.
Comparison of river and rail traffic, 622.
Railway and river statistics, 624.

In Financial News

I. B. A. president stresses need of close ties between banking and industry, 626.
Government takes more in taxes than common stockholders get in dividends, 627.
Standard Gas & Electric reorganization, 627.
New York tractions continue to decline, 628.
Electric sales campaigns, 628.
The TVA issue—propaganda vs. statistics, 629.
Security offerings continue small, 629.

Public Service Corporation of New Jersey, 629.
Corporate notes, 630.
How 1936 bond issues have fared marketwise, 631.

In What Others Think

The mystery of the elusive Federal power policy, 632.
Two state reports on regulation and operations, 636.

In The March of Events

Dr. Morgan foresees power shortage, 641.
Boulder Dam contract revision, 641.
Utility propaganda probe, 641.
Britain seeks stock sales curb, 641.
News throughout the states, 642.

In The Latest Utility Rulings

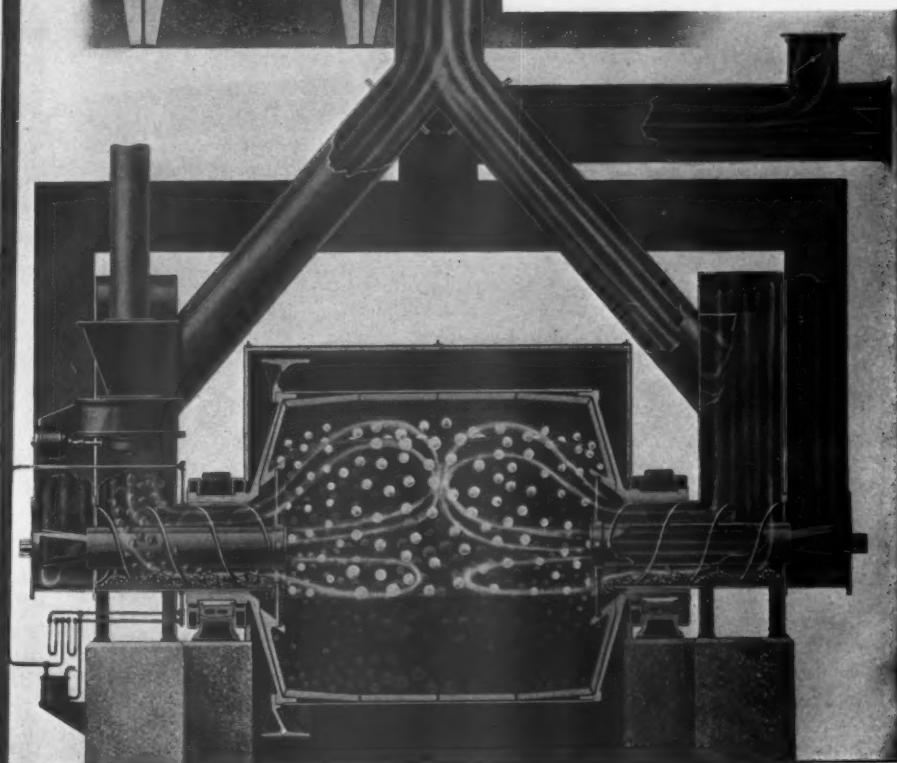
Write-up of assets not permitted in consolidation of affiliates, 650.
Rates for domestic and commercial service, 650.
Conflicting views of Federal and state commissions on merger, 651.
Railroad rate-making practices not applicable to motor carriers, 652.
Foreign business corporation not authorized to construct and operate transmission lines, 652.
Improvement of company's finances would indirectly benefit ratepayers, 653.
Corporation not permitted to acquire WPA project from township, 653.
Railway authorized to execute agreement for equipment trust, 654.
Miscellaneous rulings, 654.

PREPRINTS FROM PUBLIC UTILITIES REPORTS

*Various regulatory rulings by courts and commissions reported in full text,
pages 433-496, from 17 P.U.R. (N.S.)*

Duplex Conical Pulverizers

**Increased Capacity
Lower Power Consumption**



Raw coal is mixed with "oversize" rejects from the classifier and fed to the mill at one end through a hollow trunnion by a spiral conveyor. The pulverized fuel is withdrawn through classifiers at each end of the mill.

Conical Mills (Hardinge type) with *double classifiers* provide increased capacity and lower power consumption with all the inherent advantages of the Conical Pulverizers. Forty-one of these mills are now in service or under construction.

FOSTER WHEELER CORPORATION
165 BROADWAY, NEW YORK, N. Y.

Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

JAMES D. ROSS
Member, Securities and Exchange
Commission.

"Wrongdoing of a group is always brought about by
a few and it is these few that will be gotten rid of."

ARTHUR E. MORGAN
Chairman, Tennessee Valley
Authority.

"Private ownership has had grave faults, but effective
public ownership methods on a large scale have yet to
be developed."

ELLIS L. PHILLIPS
President, Long Island Lighting
Company.

"The business which is most likely to succeed is one
that strives to give to its customers something more than
the physical commodity that it sells."

JOHN D. ROCKEFELLER, JR.

"I would gladly dispense with the telephone and the
radio, if by so doing the peace and calm of life at a
slower pace would be brought back."

EDITORIAL STATEMENT
Engineering News-Record.

"So long as PWA provides free money, city officials
will form mendicant queues at Washington when they
should stay at home and rebuild their cities."

ROBERT H. MONTGOMERY
Professor of Economics, University
of Texas.

"Of four major industries in Texas, electricity, sulphur,
oil, and gas, more than 90 per cent of the profits
are drawn to New York, Delaware, and Pennsylvania."

HEYWOOD BROWN
Newspaper columnist.

"... the effective fighting edge of a liberal may be
diminished when the abolitionist blood of a grandfather
is crossed by railroad stock in the next generation."

EDITORIAL STATEMENT
Electrical World.

"It is difficult to get alarmed that private ownership
will take the count. It will not. It has its problems to
meet, of course, and among them will be more and more
regulation, a constant drive for lower rates, and higher
taxes."

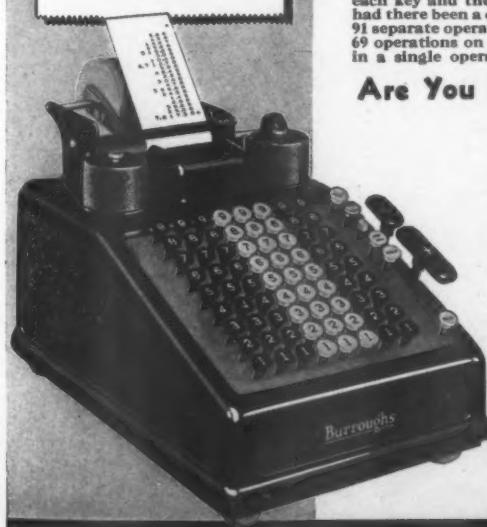
HUGH S. MAGILL
Editor, *Investor America.*

"The people can control the power and wealth of an
individual or of a corporation, but they have not yet
demonstrated their ability to control a powerful and
corrupt political machine backed by almost unlimited
wealth extracted from the people."

Burroughs

SHORT-CUT KEYBOARD

	*
5.0	0
4.5	0
1.0	6.7
2.5	6.0
3.1	5.2.5
	3.9.0
1.0	4.0
6.7	1.2.7.0
	5.9.0
4	8.4.5
	2.5.5
3	0.0.0
	4.7.8
3	5.0.0.0
	2.4.5.0
	1.4.5
	6.0.0
	3.0.6.5
	2.5.0.0
7.6	1.7.3.0*



ELIMINATES NEEDLESS MOTIONS

ALL CIPHERS ARE AUTOMATIC

Only on the Short-Cut Keyboard are ciphers written automatically. Thus, much of the work is done without touching a key.

SEVERAL KEYS AT ONE TIME

Only on the Short-Cut Keyboard can two or more keys be depressed at one time. This saves many needless motions.

ENTIRE AMOUNTS IN ONE OPERATION

Only on the Short-Cut Keyboard can an entire amount and the motor bar be depressed together, thus completely adding or subtracting the amount in one operation.

NOTE THIS TYPICAL SAVING

The 19 amounts on the tape at the left were listed and added by the Burroughs short-cut method in 22 operations. Had each key and the motor bar been depressed separately—and had there been a cipher key to depress—it would have required 91 separate operations instead of 22 . . . thus, Burroughs saves 69 operations on this one typical job. The total is obtained in a single operation.

Are You Taking Full Advantage of the Short-Cut Method?

If you are not now saving the thousands of needless motions that can be eliminated in the course of a day's adding machine work by the Burroughs Short-cut method, telephone the local Burroughs representative. He will show you how this method will bring greater speed, ease of operation and accuracy to your figuring work.

BURROUGHS ADDING MACHINE CO.
6616 Second Blvd., Detroit, Michigan

C. O. RUGGLES
Professor of Public Utility Management, Harvard Graduate School of Business Administration.

"We will be wise if we acknowledge once and for all that some of the most vital business problems of our utilities are not solved by changing the form of ownership."

CLYDE MOORE
Newspaper columnist.

"If the natives of the dust bowl want some kind of a crop that will defy all powers of light and darkness and the inventions of man to uproot it, we recommend the dandelion."

SAMUEL B. PETTENGILL
U. S. Representative from Indiana.

"If capitalism is destroyed in this country it will be chiefly an inside job. It will die in the home of its friends, its death wound given by its beneficiaries and not by its foes."

WILLIAM M. CAIN
Professor of Law, University of Notre Dame.

"No man seeking investment for his capital is likely to assume the hazard he would be compelled to assume if interpretations of constitutional guaranties are to vary with variations of public opinion."

DAVID LAWRENCE
Newspaper columnist.

"Free men in America will never exchange an independent judiciary for the whims or wiles of a legislative body nor will they long permit the judiciary to be the victim of political struggles at the ballot box."

LOUIS H. EGAN
President, Union Electric Light and Power Company (addressing employees).

"Many of you probably have been asked to discard your affiliation with the association to join one of these two organizations. Some of you may have done so, and if that is your conviction, I have no criticism to make of it."

MAJOR S. E. HUTTON
Director of Publicity, Grand Coulee Project.

"It's (Grand Coulee) bigger than the Panama canal and bigger than the pyramids of Egypt. It's bigger than the Queen Mary and the Normandie, and bigger than the Chrysler building or anything that ever was thought of anywhere."

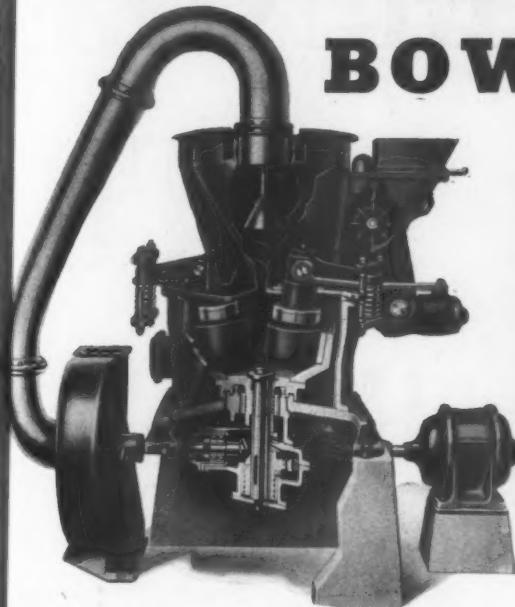
E. W. MOREHOUSE
Chief, Rates and Research Division, Wisconsin Public Service Commission.

"What many believe, or hope, is that a renascence of utility regulation has set in, stimulated and aided by the expansion of Federal control over utilities; one of the first undertakings in this period of renewed energy was the reform of obsolete system of accounts."

MME. ODETTE KEUN
French writer.

"... it is an incontrovertible fact that the public business of power has been outrageously looted in this country. Not all the power companies are rogues and rascals, but the majority of them are fully entitled to these epithets, and they have brought the whole system of utility management into stinking disrepute."

The C-E RAYMOND BOWL MILL



is establishing
new **HIGHS**
in pulverizer
performance

RESULT 187 mills sold in less than 2 years—134 for direct-fired boilers with an aggregate capacity over 14,600,000 lb. of steam per hr., 10 for storage-fired boilers and 43 for direct-fired kilns. Aggregate pulverizer capacity—2,450,000* b. of coal per hr.

Following a year's operation and testing of a commercial size unit, the C-E Raymond Bowl Mill was placed on the market a little less than two years ago. It introduced a new method of grinding which its designers expected would revolutionize previous conceptions of good pulverizer performance. Today it can be stated that the Bowl Mill's actual performance in a number of plants has fully realized this expectation. Operating results have demonstrated THAT

— the Bowl Mill's method of pulverization assures rapid and efficient reduction with virtually constant fineness over the mill's extensive capacity range;

— the response to load changes is rapid and it is unnecessary to build up a minimum load in order for the mill to operate properly;

— the absence of metal-to-metal contact decreases wear and eliminates vibration and noise;

— the Bowl Mill can operate continuously for periods of many months.

— pulverization is accomplished with minimum power consumption, and maintenance costs are exceedingly low.

The special design features of the Bowl Mill, and their resultant operating advantages, in conjunction with the mill's sturdy construction, simple operation, fine bearing units, and effective lubricating system, are the reasons for the remarkable overall performance which characterizes all installations of the C-E Raymond Bowl Mill.

* Based on Pittsburgh No. 8 coal.

A-349a

COMBUSTION ENGINEERING COMPANY, INC.

C-E Products include all types of Boilers, Furnaces, Pulverized Fuel Systems and Stokers; also Superheaters, Economizers and Air Heaters. Combustion Engineering Company, Inc., 200 Madison Avenue, New York, N. Y. Canada: Combustion Engineering Corporation, Ltd., Montreal.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

MODERNIZE

FOLLOW THE LEAD OF
BUSINESS LEADERS!

Business is modernizing. The growing demand for the Easy-Writing Royal is proof of that! Executives have found that it pays to *Modernize with Royal*—pays in lowered operating costs, in faster work, in better office morale, in finer typing.

What a difference Royals make!

Letter-perfect typing! You'll notice that the first time you sign your mail! Next, you'll realize that your work, every executive's work, is done faster! Here is performance that cannot be duplicated. Shift Freedom, Touch Control®, Finger Comfort Keys, and many other improvements are exclusive with the Easy-Writing Royal, developed by Royal for the sole use of Royal owners. Invite a demonstration. In your own office . . . Compare the Work!

ROYAL TYPEWRITER COMPANY, Inc.
2 Park Ave., New York
Factory: Hartford, Conn.

World's largest company devoted exclusively to manufacture of typewriters. Makers also of the Royal Portable for student and home use.

*Trade-mark for key-tension device.
Copyright, 1937, Royal Typewriter Company, Inc.

WITH ROYAL

WORLD'S NO. 1



TYPEWRITER



You

Have the Best Chance to Machine-Dig, with the **CLEVELAND BABY DIGGER—MODEL 95**

City and Suburban trenching is beset by many obstacles—pipe must be laid in the pavements and treelawns, under or back of sidewalks and driveways—close to buildings and many other fixed obstacles—these are but a few of the many difficulties to be overcome.

"Baby Diggers" have conclusively demonstrated their superior ability to cope with such obstacles successfully, and get the most

out of machine-trenching, wherever the job. Literally thousands of miles of completed work prove the correctness of the Baby Digger's original patented design. Today's Baby Digger Model 95, with many improvements and refinements, assures you MOST TRENCH in MOST PLACES at LEAST COST.

Write for complete information today.

THE CLEVELAND TRENCHER COMPANY

"Pioneer of the Small Trencher"

20100 ST. CLAIR AVENUE

CLEVELAND, OHIO



**The CLEVELAND
BABY DIGGER Model 95**



This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

RILEY PULVERIZERS

in Central Stations

Plant after plant in the Public Utility industry has swung to Riley Pulverizers . . . definitely establishing Riley as one of the leaders.



A few Public Utilities using Riley Pulverizers . . .

Union Electric Light & Power, Cahokia . . . Repeat Order
 Edison Electric Illuminating Co., Boston . . . Repeat Order
 Hartford Electric Light Co., Conn. . . . Repeat Order
 Potomac Electric Power Co., Washington, D. C.
 Oklahoma Gas & Electric Co. . . . Repeat Order
 Stamford Gas & Electric Co., Conn.
 City of Springfield, Ill.
 City of Tacoma, Wash.
 Savannah Electric Co., Georgia
 Dubuque Electric Co., Iowa
 Central Iowa Power & Light Co.
 Lynn Gas & Electric Co., Mass.
 Upper Michigan Power & Light Co.



RILEY STOKER CORPORATION

WORCESTER, MASS.

BOSTON
ST. LOUIS

NEW YORK
CINCINNATI

PHILADELPHIA
HOUSTON

PITTSBURGH
CHICAGO

BUFFALO
ST. PAUL

CLEVELAND
KANSAS CITY

Detroit
Los Angeles

TACOMA
ATLANTA

COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES
 PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS



Beautiful Matched Ware

.. Increases Gas Range Sales



**Modern Steel Handles
Straight Sides**
One piece handle construction for greater strength. Note straight-sided double boiler.



**Trigger Lifts Spout
Cap on Tea Kettle**
Trigger in handle permits opening or closing spout cap with index finger. Whistle in cap sings as water boils.

New Design — New Finish Appeal to the Consumer

All the features recommended for range efficiency and economy are combined in these modern utensils. They provide an entirely "different" and potent force for increasing sales and use of the Gas Range.

Entirely New Features

Flat bottoms that fit snugly over the burners; straight sides that distribute the heat evenly; hard, quick-heating sheet aluminum; and non-burn bakelite trimmings are only a few of the many features of these utensils. Two finishes are available: Sparkling Satin-Ray or brilliantly polished Silver-Sheen.

Write for Prices and Sales Plans!

Stimulate sales by offering Arrow Ware as an accessory to your range. Various combination sets are available—and there's a set that comes within your price margin. Write for prices and outlines for successful promotions!



Percolator Cover Prevents Boiling Over
Cover fits deep over sides of basket—prevents boiling over. No hinge on cover to break.



No-Drip Spout
Percolator spout has no-drip construction, easily cleaned. Six rivets attach handle socket securely.

WEST BEND ALUMINUM COMPANY

Dept. 664

West Bend, Wisconsin

Modern principles of valuing industrial properties and how to apply them

This book presents the basic principles underlying the valuation of industrial properties, with illustrations of their application to specific valuations. The book includes a synopsis of all the controlling United States Supreme Court decisions affecting the practice of valuation, and the development of an entirely new principle of depreciation.

Just Published

ENGINEERING VALUATION

by ANSON MARSTON

Senior Dean of Engineering, Iowa State College

and THOMAS R. AGG

Dean of Engineering, Iowa State College

655 pages, 6 x 9, illustrated, \$6.00

Practicing engineers and appraisers will find this comprehensive, up-to-date treatise embodies the results of the widely known valuation research carried on for 16 years at the Iowa Engineering Experiment Station. They will find that it embodies also the many court decisions since 1919 which have established and clarified fundamental valuation law. The book presents in practical form the results of work that has done much toward putting the mortality characteristics of industrial property on a sound, scientific, actuarial basis.

Special features of this book:

- the condition—per cent tables
- the methods of using mortality curves as aids in forecasting the probable service lives of industrial-property units
- the methods for estimating and accounting for actual depreciation
- the detailed analyses of 68 court decisions on valuation
- the tables of approved or implied allowances in valuation decisions for overhead costs, preliminary-expense value, going value, and working capital.

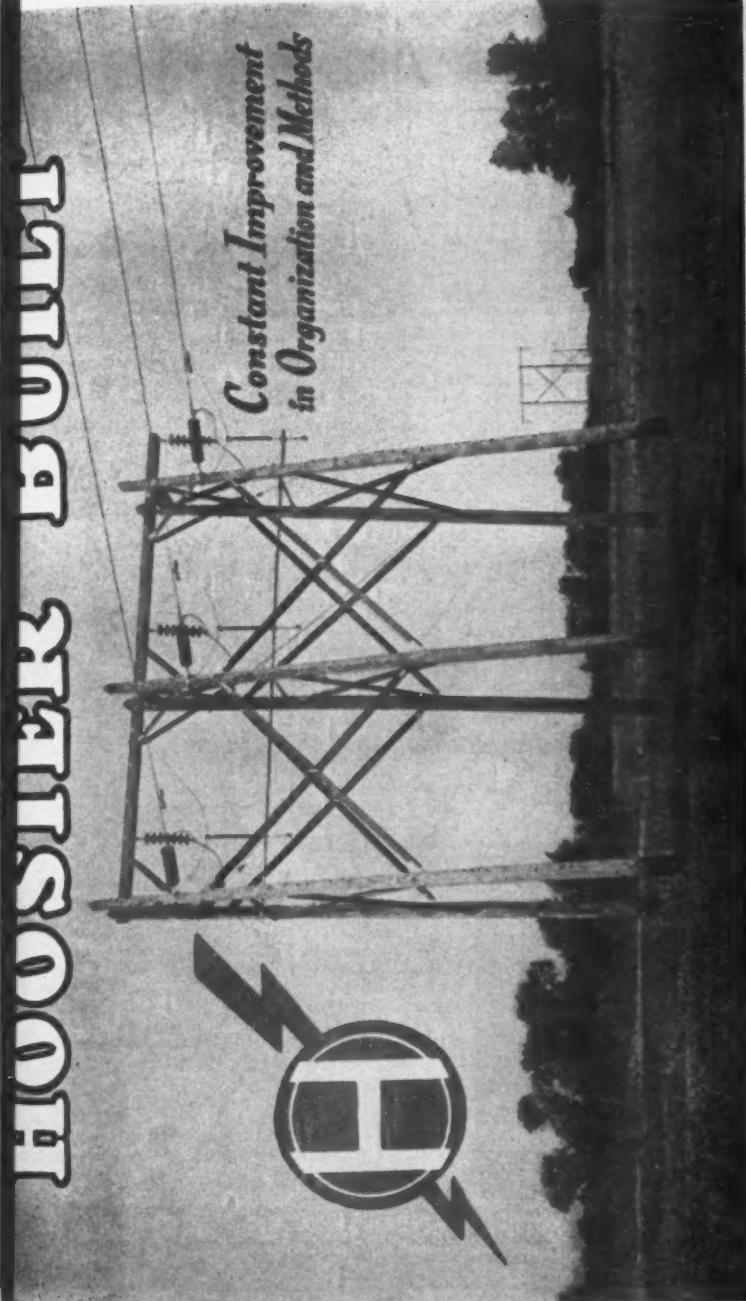
Order from

PUBLIC UTILITIES REPORTS, INC.

1038 Munsey Bidg., Washington, D. C.

May 13, 19

em
erties,
ides a
ing the
ation.



Six Pole Angle Structure Used by Platte Valley Public Power & Irrigation District in Nebraska.

HOOSIER ENGINEERING COMPANY

NEW YORK

CHICAGO

46 South 5th St., COLUMBUS, OHIO

Canadian Hoosier Engineering Co. Ltd., MONTREAL

F P R F C T O R S O F T R A N S M I S S I O N L I N E S

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

CHEVROLET TRUCK

breaks all known economy and dependability records

Here's proof!

Through blazing heat...through blasting cold... across high mountains...across level plains...this Chevrolet half-ton truck rolled up amazing new records



10,244 MILES
with 1000-pound load

\$101 TOTAL COST
OF GAS

TOTAL COST
OF REPAIR
PARTS

73¢

Study this unequaled record—then buy CHEVROLET TRUCKS

Location of Test	'Round the Nation
Gasoline Used	493.8 Gallons
Oil Consumed	7.5 Quarts
Water Used	1 Quart
Gasoline Mileage	20.74 Miles per Gallon
Average Speed	31.18 Miles per Hour
Running Time	328 Hours, 31 Minutes
Gasoline Cost per Mile	\$.0098
Average Oil Mileage	1,365.9 Miles per Qt.

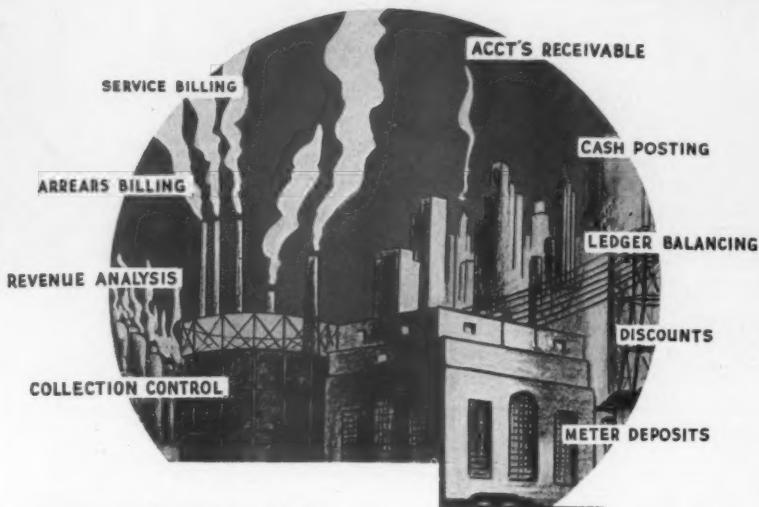
These records have been certified by the A.A.A. Contest Board as being officially correct.
General Motors Installment Plan—monthly payments to suit your purse.

CHEVROLET MOTOR DIVISION
General Motors Sales Corporation
DETROIT, MICHIGAN

"MORE POWER per gallon



LOWER COST per load



Investigate this All-around Accounting Method

¶ In re-equipping your accounting department, don't consider only your Current Service Billing needs. This type of billing comprises only 3% of present day customer accounting costs.

¶ Investigate the punched card method of accounting which, in addition to Service Billing, will facilitate the handling of Cash Posting, Ledger Balancing, Discounts, and Arrears and Merchandise Billing. This method will also enable you to control Accounts Receivable, Meter Deposits and other important functions.

¶ This modern electric Accounting method offers complete and more informative records to the customer, the district offices, the customer service department and the management. Write for complete information today.

INTERNATIONAL BUSINESS MACHINES CORPORATION

GENERAL OFFICES:
270 BROADWAY, NEW YORK, N. Y.



BRANCH OFFICES IN
PRINCIPAL CITIES OF THE WORLD



SPECIFY MERCOID CONTROLS

THEY INCREASE THE EFFICIENCY
OF AUTOMATIC HEATING EQUIP-
MENT. GIVE MORE DEPENDABLE
PERFORMANCE. REQUIRE PRAC-
TICALLY NO ATTENTION. WE
INVITE A CRITICAL COMPARISON
SEE OUR CATALOG FOR DETAILS

THE MERCOID CORPORATION
GENERAL OFFICE AND FACTORY
4201 BELMONT AVE. • CHICAGO, ILLINOIS

New York Office: Philadelphia Office: Boston Office:
90 WEST STREET 3137 N. BROAD ST. 25 IVY STREET
DISTRIBUTORS IN ALL PRINCIPAL CITIES

THE MERCOID CORPORATION • 4201 BELMONT AVENUE • CHICAGO, ILLINOIS
MANUFACTURERS OF AUTOMATIC CONTROLS FOR HEATING, AIR CONDITIONING AND VARIOUS INDUSTRIAL APPLICATIONS

GENTLEMEN: PLEASE SEND YOUR CATALOG No. 100-T

NAME _____

ADDRESS _____

KLEIN CLIMBERS

Forged from special alloy steels, individually tempered and tested, Klein Climbers are recognized by linemen and safety engineers alike as possessing the maximum factors of strength, safety and comfort.

Mathias & Sons
Established 1857 **KLEIN** & Sons
Chicago, Ill. USA

**Full Size Professional
ARC WELDER**

Details **FREE!**

Here's thrilling news! A full size, heavy duty Aladdin Electric ARC WELDER—only \$39.25 with De Luxe Accessories! Not a toy, but a big, 100-pound man-sized machine that welds all weldable metals and alloys with amazing efficiency, everything from cast iron parts to light sheet metal. A sturdy, welded-steel construction machine, yet easily portable on casters.

WORKS FROM 110-VOLT SOCKET

Simply plug into any 110 or 220 volt A.C. electric socket. Economical—costs only a few pennies an hour to use. Often pays for itself on first or second job. Can be carried right to outside jobs in auto truck or side car. Has complete heat controls. Anyone can use easily. Instructions for doing all kinds of welding jobs included.

Amazing Details FREE!

Send no money! Write today for fascinating facts about this new Aladdin ARC WELDER with De Luxe Accessories. Aladdin is the ideal welder for Public Utility service, maintenance and construction work—a highly efficient machine GUARANTEED TO MEET ALL CLAIMS, at a fraction of the price asked for others—at a saving that may amount to *several hundred dollars!* Send today for full details. You are not obligated.

COMMONWEALTH MFG. CORP.
4208 Davis Lane Dept. U-70 Cincinnati, Ohio

It Would Be Hard to Build a More Dependable Battery



CHLORIDE BATTERIES

AFTER nearly half a century — during which time it has served utilities and industrial plants all over the world — the Exide Chloride Battery remains, in the opinion of competent engineers, the best battery ever designed for control bus or other stationary service.

The active material of its positive plates —tightly coiled strips of corrugated lead—remains embedded in the alloy grids for years, while the material of the negative plates, virtually sealed up in boxes of perforated sheet lead, gives an equally long and gratifying life. Our new Bulletin 204, describing this widely known and used battery, is yours for the asking. Write for a copy.

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

The World's Largest Manufacturers of Storage Batteries for Every Purpose

Exide Batteries of Canada, Limited, Toronto

Wagner DISTRIBUTION TRANSFORMERS have all these PLUS VALUES:



Wagner types HEB-HE distribution transformers are manufactured in all commercial frequencies and voltages in sizes 1½ to 500 kva. For full information on Wagner distribution transformers write for Bulletin 180.

- **THEY ARE EFFICIENT.** Wagner Types HEB and HE distribution transformers have low core and copper losses and their ratio of losses are such that they have good all-year efficiencies.

- **THEY ARE WELL DESIGNED.** Due to precision of manufacture, careful selection of materials and parts, and intelligent engineering, Wagner transformers have all the features that are necessary for satisfactory performance, and yet they are unusually advanced in modern design.

- **THEY ARE THOROLY TESTED.** All parts and complete transformers are carefully tested to meet exacting specifications according to the latest transformer standards—an assurance that Wagner transformers are reliable, free from defects, and will give many years of continuous duty.

- **THEY WILL GIVE SATISFACTORY SERVICE.** Wagner transformers of today are the result of constant improvement in their mechanical design and efficiency, gained from the experiences of highly trained Wagner engineers and transformer users... working hand in hand... during 45 years of pioneering and developing. These years of experience have enabled Wagner engineers to determine the electrical designs that are best for satisfactory service.

- **THEY HAVE IMPROVED FEATURES.** Wagner transformers are representative of the latest developments in transformer design and manufacture... bushing and insulation coordination, steel tanks, protected and reinforced end-turns, non-aging silicon-steel cores, advanced core assemblies, extra strong element structures.

- **THEY ARE CAREFULLY CONSTRUCTED.** In the coil winding, core construction, assembly and tank construction of every Wagner distribution transformer there is that extra skill and care that only experienced men under competent supervision, can impart into a product. Every step is double checked.

- **CONVENIENT SERVICE FACILITIES.** Because Wagner maintains 25 branch offices, warehouses, and service stations in all parts of the country, Wagner can give better and quicker service to your needs.

Wagner Electric Corporation
6400 Plymouth Avenue, Saint Louis, U.S.A.

TRANSFORMERS • MOTORS • FANS • BRAKES

TD 237-184

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

The sale of Modern Lighting or Modern Store Fronts should *begin at Home!*



Here's how Architect Geo. F. Sansbury and the Potomac Edison Company convince the merchants and property owners of Cumberland, Md., of the value of brightly lighted stores.

A modern store front demands modern illumination. And modern illumination means a heavier lighting load. There's a natural tie-up if there ever was one . . . new Pittco Store Fronts and modern lighting.

But to take best advantage of this tie-up . . . to convince prospects in your community of the soundness of store front modernization with better lighting . . . there's nothing more valuable than an actual example . . . on your own show rooms . . . of just what you mean.

You talk to a merchant . . . tell him the need for modern merchandising methods . . . plug away on the idea of a new store front with better lighting. And to clinch the argument, you say "Look at our own quarters down the street. There's a new front . . . illuminated in the modern manner. We

practice what we preach . . . because we know it means better business!"

Put a new Pittco Front on your utility show rooms. Make them an example of what you preach. And when the Pittco Store Front Caravan, sponsored by Pittsburgh Plate Glass Company, comes to your territory, don't miss it. It shows you numerous actual examples of modern store front lighting. It offers you an opportunity to cooperate with a promotional effort that leads directly to more business for you. Contact our local branch for data about the Caravan . . . and for any cooperation on store fronts you may need in your work.

Paint. PITTSBURGH. Glass
PLATE GLASS COMPANY

(*excerpt from article in
Iron Age, March 11, 1937.*)

" - - - a co-operative advertising campaign dominated by the thought that the right method of driving machines will cut production costs, will rapidly and inevitably insure a widespread knowledge of improved power transmission practice throughout all industry, to the benefit alike of the user and producer of power, and the seller of power-transmission equipment."

POWER TRANSMISSION COUNCIL
75 STATE STREET • **BOSTON, MASSACHUSETTS**

A research association of producers and distributors of power, power units and mechanical equipment for transmitting power.





When
**CONTROL
is
VITAL**

USE A TITAN ON YOUR STORAGE WATER HEATER

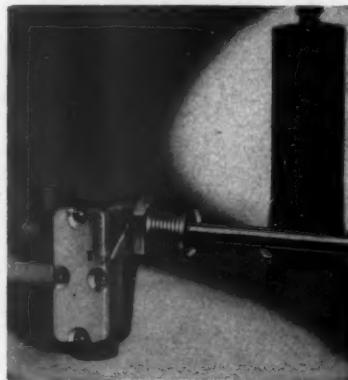
To make this control possible, there must be built into the racing car the sturdiness, the long life, and the ability to absorb the gruelling punishment of the race. So too, the TITAN is built to perfectly control your storage water heater over a long period of time, and under the most exacting conditions. Upon this depends the success of the heaters you sell. Your aim is to increase consumer satisfaction.

¶ Why take unnecessary chances? Specify TITAN snap action thermostats, safety pilots and temperature and pressure relief valves with complete confidence, and build good will with your customer.

¶ TITAN Controls have delivered for years under every conceivable set of conditions, with all types of gases. They are rugged, sensitive, trouble and service free. They are standard equipment on most storage water

heaters approved by the American Gas Association.

¶ May we send you an impressive list of manufacturers who have standardized on TITAN Controls?



THE TITAN VALVE & MANUFACTURING COMPANY

THERMOSTATS • SAFETY PILOTS • RELIEF VALVES

9913 Elk Avenue

Cleveland, Ohio

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)





HI-SPEED L&H CALROD UNIT
with FLAT thrust coils.

**Revolutionary
Oven Design**

**L&H Advanced
ELECTRIC RANGE**

*With "EQUALIZED
HEAT" Oven*

Make perfect results a certainty—produce flavorful whole meals that turn delicate appetites to robust hunger. With modern styling . . . sparkling finish, L & H Electric Ranges offer a complete step-up line. Designed to fit flush against walls and cabinets, they enhance the charm of modern kitchen design.

*Get the facts about L&H
features that produce
sales response.*

**A. J. LINDEMANN
& HOVERSON CO.
MILWAUKEE, WIS.**

GOOD INSULATORS



Insulators are only as good as the experience and workmanship put into their production.

Our product is produced by men of the greatest experience to be found in the industry.

VICTOR made insulators are Good INSULATORS.

Catalog on request

**Victor Insulators, Inc.
Victor, N. Y.**

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



INSTRUMENTS

TAGliabue offers a broad selection of instruments for measuring and controlling the energy factors so necessary for the proper operation of equipment. Ask for details and descriptive catalog of any of the following TAG Instruments:

RECORDING THERMOMETERS
RECORDING PRESSURE GAGES
INDUSTRIAL THERMOMETERS
PYROMETERS FOR INDICATING, RECORDING
AND CONTROLLING
FLOW METERS
INTEGRATING STEAM METERS
CONTROLLERS FOR TEMPERATURE,
PRESSURE, LEVEL, FLOW
MERCURIAL VACUUM GAGES
CHEMICAL THERMOMETERS • HYDROMETERS
OIL TESTING INSTRUMENTS • STEAM TRAPS



C. J. TAGLIABUE MFG. CO.
Park & Nostrand Ave's., Brooklyn, N. Y.



EVEREADY
Trade Mark
**INDUSTRIAL
FLASHLIGHT**

"Stands the Gaff"

General all-around hard usage in industrial service has shown conclusively that the "EVEREADY" Industrial Flashlight can "Stand The Gaff". Bounced around on concrete floors and many other places are everyday shop experiences and each time this "EVEREADY" has come through unmarked. Its bright beam does not even flicker. The fact that it has no exterior metal parts is vitally important when working around exposed electrical connections and "hot" wires.

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N.Y. • Branches: Chicago, San Francisco

Unit of Union Carbide  and Carbon Corporation

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Public Utilities Fortnightly

THE review magazine of current opinion and news relating to public utilities. Conducted as an open forum for the frank discussion of both sides of controversial questions—economic, legal and financial; also gives trends in the present-day control of these companies—governmental competition—state and Federal regulation.

¶ Issued every other Thursday—26 numbers a year—annual subscription \$15.00.

¶ The only magazine furnishing current and vital information on all subjects involving the financing, operation, and management of public utilities under governmental regulation and competition.

¶ A magazine of unusual value and current stimulation to all persons holding positions with, or having a financial interest in, public utilities.

ORDER FORM

PUBLIC UTILITIES FORTNIGHTLY

1038 Munsey Building, Washington, D. C.

Please forward, prepaid, to the undersigned, Public Utilities Fortnightly (26 issues), at \$15.00, beginning with the current issue.

Name _____

Address _____

Date _____



THE TRUCK OF VALUE

SEE GMC FOR EXTRA VALUE

... for advanced stream-style with exclusive "dual-tone" color design ... for half-ton trucks with either short or long wheelbases and the biggest bodies available ... for either standard or cab-over-engine trucks ranging in capacity to 12 tons ... for "truck-built" trailers ... for improvements and refinements that assure greater economy and improved performance.

Time payments through our own Y.M.A.C. Plan at lowest available rates

QUALITY AT PRICES LOWER THAN AVERAGE

GENERAL MOTORS TRUCKS & TRAILERS

GENERAL MOTORS TRUCK & COACH

DIVISION OF

YELLOW TRUCK & COACH MANUFACTURING COMPANY, PONTIAC, MICHIGAN

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

The Field Performance Of This Burnham Gas Boiler Equals Its Shop Test

JUST naturally no boiler manufacturer deliberately handicaps a shop test. Everything is done under the most favorable conditions. If then a boiler can in actual field operation, equal the shop test, it makes you stop and think.

As a matter of fact the Burnham was approved under the new A.G.A. requirements.

There are very definite reasons for this boiler's fine performance. Send for Catalog. Get the facts. See for yourself.



Burnham Boiler Corporation

IRVINGTON, NEW YORK
ZANESVILLE, OHIO

Representatives in All Principal Cities of the United States and Canada



THE CAREFUL INVESTOR JUDGES A SECURITY
BY THE HISTORY OF ITS PERFORMANCE

K E R I T E
IN THREE-QUARTERS OF A CENTURY OF
CONTINUOUS PRODUCTION HAS ESTABLISHED
A RECORD OF PERFORMANCE
THAT IS UNEQUALLED IN THE HISTORY OF
INSULATED WIRES AND CABLES

THE KERITE INSULATED WIRE & CABLE COMPANY INC.
NEW YORK CHICAGO SAN FRANCISCO

Look into it!

See how Williamsport Strand is built to last *Longer!*



See the pure, heavier galvanizing—how even it is, and because of that, how tightly and firmly it lays against the coat of the next wire. This means less friction and longer wear. Bend the wire—try to crack its more uniform coat—and see how it resists flaking. This helps keep out corrosion, extends the life of Williamsport Strand.

Why not try Williamsport next time you order strand? It's always good to check your equipment . . . to see that you get maximum service . . . so will you arrange to compare Williamsport Strand on your operations?

WILLIAMSPORT WIRE ROPE CO.

122 SO. MICHIGAN AVE., CHICAGO—WILLIAMSPORT, PA.

Offices in All Principal Cities

Joslyn Manufacturing & Supply Co.

20 N. WACKER DRIVE, CHICAGO, ILL.
NATIONAL DISTRIBUTORS FOR WILLIAMSPORT STRAND

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Accelerate Customer Transactions

FOR LOWER BAD DEBT LOSSES AND BETTER PUBLIC RELATIONS

When needed information is transmitted quickly and efficiently between customer History Records and the Service Desks, bad debt losses start downward, as has been demonstrated again and again in the offices of public utilities using the Dictograph Public Utilities Customer Control System. This fact is evidenced by the bad debt loss of only eight-hundredths of one per cent reported by the Kansas City Power and Light Company. Similar experiences are reported by other Dictograph users such as New York Edison Company, Public Service of N. J., Columbus Street Railways Power and Light, etc.

Better Public Relations also demands a minimum of elapsed time, in the completion of applications for service, requests for duplicate bills, excess charge complaints, etc. These situations and many others are handled more quickly with the Dictograph Public Utility System.

It also helps your organization to ascertain credit ratings, customer histories, amounts of deposits, etc. In many cases transactions usually requiring 10 to 15 minutes are reduced to 45 seconds through centralization of information and rapid Dictograph Intercommunication. Request details and full information from Dictograph Products Co., Inc., 580 Fifth Avenue, New York, N. Y.

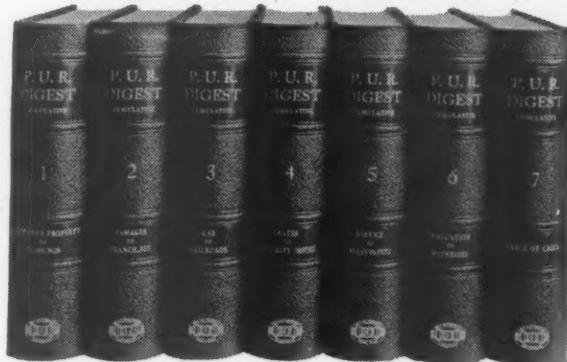


DICTOGRAPH SYSTEM OF INTERIOR TELEPHONES

P. U. R. Digest

CUMULATIVE

A DIGEST THAT IS SERVICED



Public Service Law and Regulation

The only Complete Digest in this field

A Work of Primary Authority

Containing the Decisions and Rulings
of the

United States Supreme Court
United States Circuit Courts of Appeals
United States District Courts
State Courts
Federal Regulatory Commissions
State Regulatory Commissions
Insular and Territorial Regulatory Commissions

A SHORT CUT
COVERING
FIFTY YEARS

AN EXHAUSTIVE
SURVEY OF
THE LAW

SIMPLE
ALPHABETICAL
CLASSIFICATION
OF SUBJECTS
A GREAT REVIEW
A GREAT SERVICE

A Life-Time Digest Kept up to Date

Write for price and payment plans

PUBLIC UTILITIES REPORTS, INC.

Tenth Floor, Munsey Building
Washington, D. C.

A-E-CO

TAYLOR STOKER UNITS
TAYLOR STOKERS
FURNACES (Water-Cooled)
ASH HOPPERS

UNCOVER THE FACTS!

Increase Capacity Economically

One successful method to boost steam output is by adding American Engineering water-walls to your present boilers. Thus additional capacity is achieved without the burden of a heavy capital expenditure. Experience in many central stations adequately proves this statement.

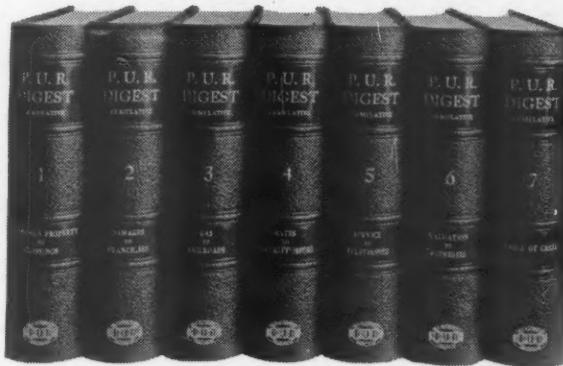


Division: AMERICAN ENGINEERING COMPANY
PHILADELPHIA, PENNSYLVANIA

Other Products: A-E-CO LO-HED MONORAIL ELECTRIC HOISTS, A-E-CO HELE-SHAW
PUMPS, MOTORS AND TRANSMISSIONS, A-E-CO MARINE AND YACHT AUXILIARIES

P. U. R. Digest

CUMULATIVE
A DIGEST THAT IS SERVICED



Public Service Law and Regulation

The only Complete Digest in this field

A Work of Primary Authority

Containing the Decisions and Rulings
of the

United States Supreme Court
United States Circuit Courts of Appeals
United States District Courts
State Courts
Federal Regulatory Commissions
State Regulatory Commissions
Insular and Territorial Regulatory Commissions

A SHORT CUT
COVERING
FIFTY YEARS

AN EXHAUSTIVE
SURVEY OF
THE LAW

SIMPLE
ALPHABETICAL
CLASSIFICATION
OF SUBJECTS
A GREAT REVIEW
A GREAT SERVICE

A Life-Time Digest Kept up to Date

Write for price and payment plans

PUBLIC UTILITIES REPORTS, INC.

Tenth Floor, Munsey Building
Washington, D. C.

A-E-CO

TAYLOR STOKER UNITS
TAYLOR STOKERS
FURNACES (Water-Cooled)
ASH HOPPERS

UNCOVER THE FACTS!

Increase Capacity Economically

One successful method to boost steam output is by adding American Engineering water-walls to your present boilers. Thus additional capacity is achieved without the burden of a heavy capital expenditure. Experience in many central stations adequately proves this statement.



Division: AMERICAN ENGINEERING COMPANY
PHILADELPHIA, PENNSYLVANIA

Other Products: A-E-CO LO-HED MONORAIL ELECTRIC HOISTS, A-E-CO HELE-SHAW PUMPS, MOTORS AND TRANSMISSIONS, A-E-CO MARINE AND YACHT AUXILIARIES



Manufactured by a patented process in which the proportions of the ingredients are closely controlled, resulting in maximum absorption capacity. Write for Bulletin No. 100-B-1.

Connelly supplies Iron Sponge and Unmixed Iron Oxide—Regulators for District, Station, Service and Appliance—Back Pressure Valves—Caloropic BTU Indicators—H2S Testers and U-Gauges—Smyly Mercury Loaders—and a full line of Distribution Supplies.

The "Heavy" Bushel

Keen buyers of gas purification materials specify Connelly Iron Sponge—and with good reason. It actually weighs more per bushel—and has greater capacity for sulphur removal due to its highly active, properly hydrated and alkalinized iron oxide. Its selected wood filler is less compressible than ordinary shavings thus maintaining porosity of the bed, insuring prompt revivifying after repeated foulings, and requiring less frequent renewals in the boxes. The uniformity of Iron Sponge and its extra measure of ferric oxide, well distributed, help reduce gas purification costs.

CONNELLY

IRON SPONGE AND GOVERNOR COMPANY

CHICAGO, ILL., ELIZABETH, N.J.

New England Agent: T. H. Piser, Wellesley Hills, Mass.

*Only . . . STOWE STOKERS
can give you these
ADVANTAGES*



● Compensating feed—positive rear end air seals—unrestricted coal selection—and much reduced ash pit losses—these are some of the advantages that Stowe Stokers—and only Stowe Stokers can give you. Investigate these exclusive features. Full details and a copy of Catalog No. 10 sent on request.

THE JOHNSTON & JENNINGS CO.

977 Addison Road Cleveland, Ohio
Engineering and Sales Services
in the Principal Cities

Stowe Stokers give you greatest possible control over fluctuating coal prices.

Catalog No. 10 is complete with 14 diagrams, 20 illustrations. Send for one.



STOWE STOKERS

★ *Compensating Feed*

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Opening the ENTIRE side of a building



Real Engineering Problem Any Way You Figure!

But here is an illustration of how it was handled successfully, for permanent efficiency, easy and convenient operation, and space economy, with a Kinnear Steel Rolling Door.

This door is 46'8" wide by 16'1" high. Think of it! And though it weighs almost ten tons, Professor Otto H. Lunde, of the Aeronautical Department Laboratory, at the University of Alabama, states: "The ease and rapidity with which such an immense door can be opened or closed, even by one man, is almost unbelievable."

Naturally this door was especially built for job. But so is every Kinnear Door. Furthermore, it is constructed and operated substantially the same as the thousands of smaller Kinnear Doors that may be found in daily use from one end of the world to the other. A curtain of inter-locking steel slats travels in guides on the jambs and coils on a barrel

above the lintel. Like a windowshade! It raises vertically, out of the way—conveniently—saving space. And counterbalanced with helical springs it operates with relative ease. Yes, and in addition, it is a real barricade against weather, intruders or fire.

True, you will seldom have as tough a problem. But even so, it is assuring to know that any of your door needs will be handled by a nation-wide organization that can skillfully cope with the most difficult jobs. People who know the door business!

Specify "Kinnear" and be assured receiving doors that have proved to cost less to operate and maintain.

At Right is shown the Aeronautical Laboratory of Alabama University, with the huge Kinnear Door closed. Compare the size of the door with the man.



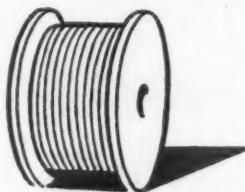
BRANCH OFFICES

Boston—Philadelphia
New York—Washington
New Orleans—Pittsburgh
Detroit—San Francisco
Chicago—Baltimore
Cleveland—Cincinnati

Agents in Principal Cities

The KINNEAR Manufacturing Company
2060-80 FIELDS AVENUE COLUMBUS, OHIO

A·C·S·R



- When arcs occur on A. C. S. R. lines, the steel core is always protected by the Aluminum strands, and arcs are unstable on the Aluminum. Further protection is provided at supports, where flashbacks usually occur, by Armor Rods. Aluminum Company of America, 2134 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA · ALUMINUM



UNDERGROUND

. . . a big reduction on
installation costs!

ABOVE GROUND

. . . the economy of
permanent efficiency!



. . . and, as a result . . .

IMPORTANT SAVINGS IN YOUR ELECTRICAL DISTRIBUTION COSTS

OF the many products specifically designed by Johns-Manville to lower cost and increase efficiency of electrical distribution, Transite Conduit is a striking example of how well this purpose has been accomplished.

Made of two imperishable materials—asbestos and cement, Transite Conduit is strong, permanent, corrosion-resistant, fire- and weather-proof.

UNDERGROUND, Transite's strength permits installation without an envelope. "Concreting-in" costs are eliminated—installation savings large. And Transite's high resistance to corrosion assures virtual freedom from maintenance.

ABOVE GROUND—in any exposed location—Transite Conduit is weatherproof. Incombustible, it is unharmed by smoke or corrosive fumes. Hence, it offers the economy of permanent efficiency, at negligible upkeep, throughout its years of service.

Utility executives concerned with lowering electrical distribution costs . . . and keeping them low . . . will find it profitable to get all the facts on the many advantages of this modern conduit. For details, address Johns-Manville, 22 E. 40th St., N. Y. C.



**Johns-Manville
TRANSITE
ELECTRICAL
CONDUIT**

HYDRAULIC TURBINES

FRANCIS AND HIGH SPEED RUNNERS

- ★ Penstocks
- ★ Butterfly Valves
- ★ Power Operated Rack Rakes
- ★ Gates and Gate Hoists
- ★ Electrically Welded Racks

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY

Hydraulic Turbine Division

NEWPORT NEWS, VA.

90 BROAD ST., NEW YORK, N. Y.

VULCAN
SOOT BLOWERS

Durable
Dependable
Service

VULCAN SOOT BLOWER CORPORATION
Du Bois *Pennsylvania*

BRISTOL'S METAMETER

**WATER LEVEL
IN RESERVOIR**

MILES AWAY

instantly recorded

AT PUMPING STATION OR IN ENGINEERS' OFFICE

Is water level at the dam rising? Is it falling? At what rate? What has been the levels each day during the past few days?

Bristol's Metameter for tele-metering will tell you,—instantly, accurately, easily. The

large 12 inch chart of the recorder receiver located at the pumping station, or any other convenient central headquarters, reveals every fluctuation—the moment it occurs—at any point even hundreds of miles away!

You'll like Metameter simplicity.

Only a simple two wire circuit is employed for transmitting the measurements. You can use any existing telephone line if you want to. Moreover,—measurements are not distorted by the presence of neighboring power networks. Even surges and transients caused by lightning are easily guarded against. Get full information. Write for bulletin 424X.

**THE BRISTOL COMPANY,
WATERBURY, CONN.**

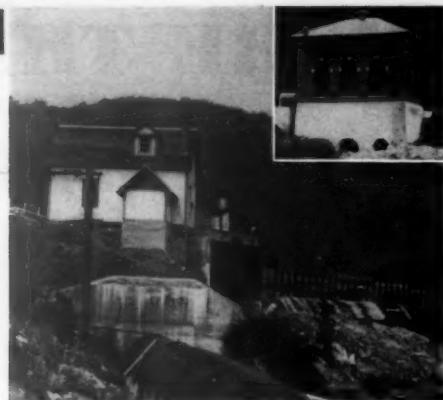
Branch Offices: Akron, Birmingham, Boston, Chicago, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, St. Louis, San Francisco, Seattle. Canada: The Bristol Company of Canada, Limited, Toronto, Ontario. England: Bristol's Instrument Company, Limited, London, N. W. 10.



TRADE MARK
BRISTOL'S
REG. U. S. PAT. OFF.

PIONEERS IN PROCESS CONTROL SINCE 1889

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



A Bristol's Metameter measures the water level in the reservoir shown above. The Recording Receiver is located several miles away in the station shown in the insert. An Indicating Receiver in the gate-tender's house gives him complete information of water level day and night.

MORE THAN A MILE OF CUBIC FEET OF *Cooler Air PER MINUTE*

GUTHFAN



* No. R4808



GUTHFAN

GUTHFAN—"Cools You All Over"

with Indirect Lighting

Efficient, modern-day illumination, providing glareless, shadowless, soft lighting, is available with GUTHFAN, as one complete unit.

Office-morale, the will to work, is definitely enhanced by this proper method of lighting and cooling.

GUTHFANS are equipped with guaranteed motors; Guth indirect lighting reflectors are finished by the amazing new ALZAK finish.

Write us for further particulars.

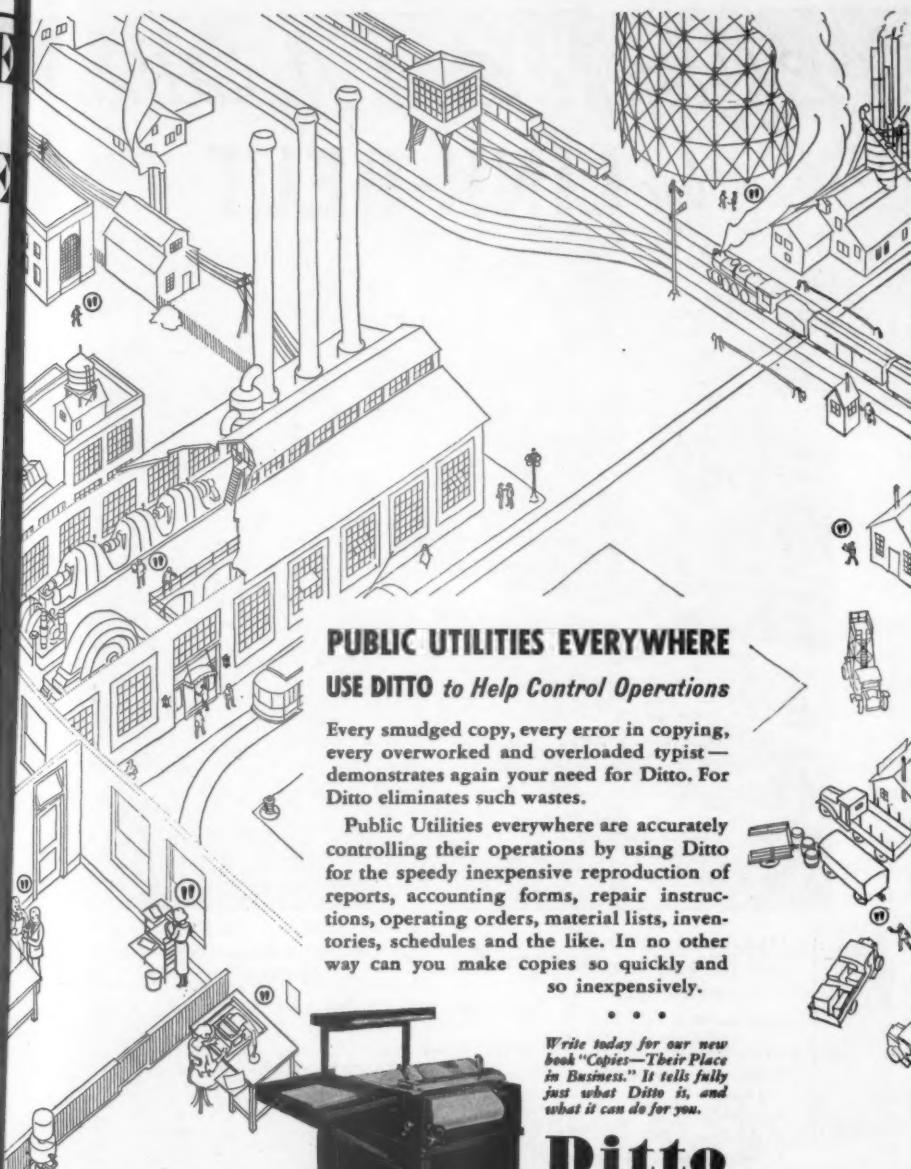
MAILING COUPON

Edwin F. Guth Company,
2600 Washington Ave.,
St. Louis, Mo.

Send immediately additional information on

GUTHFAN INDIRECT LIGHTING

Name .....	.....
Firm .....	.....
Address .....	.....



PUBLIC UTILITIES EVERYWHERE

USE DITTO to Help Control Operations

Every smudged copy, every error in copying, every overworked and overloaded typist—demonstrates again your need for Ditto. For Ditto eliminates such wastes.

Public Utilities everywhere are accurately controlling their operations by using Ditto for the speedy inexpensive reproduction of reports, accounting forms, repair instructions, operating orders, material lists, inventories, schedules and the like. In no other way can you make copies so quickly and so inexpensively.

• • •
Write today for our new book "Copies—Their Place in Business." It tells fully just what Ditto is, and what it can do for you.

Ditto
INCORPORATED
2284 W. HARRISON ST.
CHICAGO, ILLINOIS

Efficient Coal Handling by LINK-BELT



LINK-BELT EQUIPMENT FOR THE POWER PLANT INCLUDES:

- Conveyors of all types, such as belt, bucket screw, flight, drag chain apron, etc.
- Bucket carriers and elevators
- Skip hoists
- Feeders of all types
- Weigh laries
- Locomotive and crawler type cranes
- Coal crushers
- Water intake screens
- Rotary railroad car dumpers
- Underfeed screw type stokers

● This modern belt conveyor system, which is used at a large power station for handling and distributing coal to bins, represents the "last word" in low-cost, high-efficiency conveying. Each conveyor has a capacity of 325 long-tons per hour.

Link-Belt anti-friction idlers provide a low-maintenance-cost, practically frictionless road bed for the belt, which, with the Link-Belt self-propelling **TANK** type tripper, assures long belt life and dependable conveyor service.

If you have a handling problem, put its solution up to experienced Link-Belt engineers. We build the complete range of conveying machinery. No task is too small or too large to interest us. Address Link-Belt Company, Chicago, Philadelphia, Indianapolis, Atlanta, San Francisco, Toronto, or any of our offices, located in principal cities.



5772-A



A New Low-Cost Foam Tool! Combines Water, Solution and Air To Form Fire-Smothering Foam

Public utilities are welcoming this revolution in larger-capacity foam equipment for flammable liquid fires.

The specially designed PHOMAIRE Plaype connects to your hose line (3/4" to 2 1/2"). When the water is turned on, PHOMAIDE, new foam-making solution carried in a Hippack, and air are automatically drawn into the water stream in the proper proportions to form foam.

There are no complicated preliminaries, no confusing adjustments, no moving parts. And only one man is required at the Play Pipe.

Less than 20 gallons of water at a pressure of 75 pounds or more are required per minute. This is the only efficient foam unit available for small lines. One gallon of Phomaide Solution makes 350 gallons of foam. 300 to 400 gallons per minute may be continuously produced by merely pouring additional solution into the Hip Pack.

This is NEWS. Without obligation, ask for descriptive literature, prices and a demonstration of the Phomaire Unit illustrated at the left. Don't wait! Mail your request now.



Get the Latest Foam Equipment

Phomaice and *Phomaide*
PLAY PIPE SOLUTION

developed, made and sold by

Pyrene Manufacturing Company
NEWARK NEW JERSEY

NEW APPLICATIONS of ELECTRIC HEAT for the PROCESS INDUSTRIES



Every power company executive and commercial department representative will want these booklets . . . Sent upon request.

It is easy to show the chemical and process industries that the use of electric heat is a good investment.

With Elliott indirect electric heaters and heating systems, high temperatures (up to 800° F.) can be obtained, permitting quicker reactions and perhaps new products. Electric tubular heaters are also available for any desired temperature or pressure. The close, automatic temperature control, due to electric heat, results in a uniform, higher quality product with a greater sales value, and less spoilage.

A slight increase in heating cost is nothing compared to the advantages obtained.

We will gladly send descriptive literature telling the how and why of Elliott electric heating systems.

**ELLIOTT
COMPANY**

PITTSBURGH, PA.

*Heat Transfer Dept., JEANNETTE, PA.
District Offices in Principal Cities*

chemical
that t
a goelectr
ystem
800° F
nittin
perha
tubul
for a
ressur
tempe
ric hea
er qua
er salheatin
l to t
criptive
nd wh
systemT
TE, PA
Cities
M
nt)

Utilities Almanack

M A Y

13	T ^h	Missouri Association of Mayors and Other Municipal Officials concludes meeting, Columbia, Mo., 1937.
14	F	National Fire Protection Association ends meeting, Chicago, Ill., 1937.
15	S ^a	American Gas Association, Natural Gas Department, concludes session, Kansas City, Mo., 1937.
16	S	National Electrical Manufacturers Association begins spring meeting, Hot Springs, Va., 1937.
17	M	Edison Electric Institute will hold annual convention, Chicago, Ill., June 1-6, 1937.
18	T ^u	Association of Washington Cities starts conference, Bellingham, Wash., 1937.
19	W	American Transit Association, Central Region, convenes for session, Columbus, Ohio, 1937.
20	T ^h	Pennsylvania State Telephone & Traffic Asso. opens meeting, Harrisburg, Pa., 1937. Pacific Coast Electrical Association starts convention, Pasadena, Calif., 1937.
21	F	American Water Works Association, New Jersey Section, begins convention, Newark, N. J., 1937.
22	S ^a	New York State Society of Professional Engineers opens meeting, New York, N. Y., 1937.
23	S	National Electrical Wholesalers Association opens convention, Hot Springs, Va., 1937. American Public Welfare Association starts conference, Indianapolis, Ind., 1937.
24	M	National Assn. of Purchasing Agents starts international meeting, Pittsburgh, Pa., 1937. Missouri Association of Municipal Utilities begins meeting, Marshall, Mo., 1937.
25	T ^u	Missouri Telephone Association begins annual session, Kansas City, Mo., 1937.
26	W	American Gas Association concludes production and chemical conference, New York, N. Y., 1937.

SUPERFLUOUS LAWS OPPRESS



Sketch by Ward Lockwood

Courtesy of Federal Works of Art Project

The Inundation

Public Utilities

FORTNIGHTLY

VOL. XIX; No. 10



MAY 13, 1937

A Letter and a Postage Stamp

Inexpensive procedure by which thousands of customers' individual grievances against utility companies are adjusted by state public service commissions.

BY ALEXANDER M. MAHOOD
MEMBER, WEST VIRGINIA PUBLIC SERVICE COMMISSION

POSSIBLY the purposes, functions, and powers of no governmental agency are less clearly understood by the public, more susceptible of misuse or abuse, the victim of more unwarranted and unjust attacks than the modern state regulatory commission charged with the duty of regulating the affairs, service, facilities, practices, and rates of that vast industry supplying light, heat, communication, water, transportation, and other vital, essential, and indispensable service to the public.

This lack of clear understanding is in part natural and to be expected. A state regulatory commission's functions and activities are at best rather

dry, technical, and not very interesting reading so the general public in this day and time seldom even reads the little publicity that is given to a commission's order, announcement, or requirement. Who wants to listen to, or read about, organization costs, material and labor prices, labor performance, going value, working capital, fair value, operating revenues and expenses, rate of return, certificates of convenience and necessity, security issues, mergers, consolidations, management contracts, and the other multitude of items and matters with which a commission daily has to deal?

Another cause for misunderstanding can be credited to those who would

PUBLIC UTILITIES FORTNIGHTLY

have the public believe that a state commission's duties are wholly judicial and that it sits as a court, passing upon matters in controversy between litigants, in a legalistic and judicial manner. Nothing that could be said is farther from the truth. A state commission is not a judicial tribunal but an agency of the legislature to which has been delegated the administration of legislative functions. This is clearly shown by the decisions of the courts.

Still another cause for misunderstanding and lack of appreciation of the functions and activities of the modern state commission has in recent years made its appearance, due largely to attacks upon state regulation of public utilities by those who look upon it with disfavor and say that "state regulation has failed" or that "state regulation is ineffective." Many of these critics have had little or no actual experience in the regulatory field. They, in the main, base their conclusions upon isolated instances of formal proceedings involving the whole rate structures of large utilities and the long-drawn-out hearings incident to such proceedings, sometimes lasting a year or more, with the resultant unusual cost not only to the utility but to its customers and the regulatory agency. Those experienced in regulatory matters deny that such conclusions based on such a reason is sound.

It is true that many proceedings last for what seems an illimitable duration and are extremely costly. This state of affairs in some such proceedings can be traced directly to the utility involved, in others to the customers who must pay the rates that are at issue, and in others to the commis-

sion itself. But the predominant reason for such lengthy and costly hearings cannot be directly traced to the utility, the customer, or the commission, but to the judicial process which must be followed by a commission before it can determine whether the demand for an increase in rates by a utility is just and reasonable or whether, in an investigation case, the existing rates of a utility should be reduced.

This judicial process is founded upon that provision of the Federal Constitution which says that no person "... shall be deprived of life, liberty, or property without due process of law nor shall private property be taken without just compensation" by the United States, and that no state shall "deprive any person of life, liberty, or property without due process of law or deny to any person within its jurisdiction the equal protection of laws."

A commission in the administration of regulatory laws in rate proceedings deals with private property whether it be a utility plant or the expenses and revenues of a utility concern. It must, therefore, before it can make any lawful order adversely affecting the owner of such property or taking from him any income therefrom, accord to such owner due process of law, which has been interpreted by the courts to mean notice and an opportunity to be heard.

THE United States Supreme Court has, through the medium of successive decisions, laid down the character of evidence that must be considered by a commission in these cases. These decisions have enunciated the judicial process herein referred to and what is sometimes called the Federal rule, and should commissions endeavor to take

A LETTER AND A POSTAGE STAMP

short cuts or deprive a utility of the right to be heard and an adequate opportunity to present evidence in its behalf it would immediately run counter to the rule and its final determination, upon appeal to the supreme court of the land with its inherent delays, would be set aside. Short cut methods eliminating long-drawn-out proceedings devoutly prayed for by everyone, have not been found although there is no drought of perennial ideas in this respect. State commissions would welcome a method of procedure that would eliminate the necessity of listening to and considering the mass of evidence that is introduced in these proceedings by reason of the Federal rule, but until the court modifies the existing judicial process to be followed in making rates commissions cannot constitutionally and legally proceed otherwise.

Those who say that a state commission sits as a court and those who say that "state regulation is ineffective" do not inform the public of the many functions of the regulatory agency other than formal rate cases. If there could be a greater and more accurate dissemination of information concerning these other functions and activities, regulation by state commissions would be better understood and more appreciated.

ALTHOUGH, weighed by dollars and cents, the regulation of rates is the most far-reaching and important function of a state commission, its powers and duties, generally speaking, are broad and comprehensive and cover practically every activity of a public utility from the question of when and how a customer shall be extended service to when a dividend shall be paid stockholders and how much it may be. These powers include the regulation of the issuance of securities such as stocks and bonds, thereby protecting not only the users of utility service but the investing public; the granting of certificates of convenience and necessity; the right to require the establishment by a utility of adequate facilities and the extension of its facilities and service to new customers; control over the sale, purchase, and merger of utility plants and properties; control over contracts between an operating utility and its affiliates for furnishing management, engineering, financial, and other service; and the prohibition of the discontinuance of any facility or service or the changing of any rate without the approval of the commission first obtained.

The above briefly states some of the powers of the modern state commission but will suffice to illustrate the point that its functions and jurisdiction are indeed broad and all inclusive and



G"THOSE who say that a state commission sits as a court and those who say that 'state regulation is ineffective' do not inform the public of the many functions of the regulatory agency other than formal rate cases. If there could be a greater and more accurate dissemination of information concerning these other functions and activities, regulation by state commissions would be better understood and more appreciated."

PUBLIC UTILITIES FORTNIGHTLY

are only restrained by legislative and constitutional limitations.

It is not proposed to enter upon an extended discussion of the various functions of a state commission but merely to call attention to a quick, speedy, inexpensive procedure commonly used by commissions in matters affecting customer and prospective customer dealings with utilities. This procedure is called informal complaints. It is indeed an important feature of commission work and one that has received little publicity, and a discussion of it is thought to be in line with the views hereinabove expressed. The necessity for this procedure became apparent soon after the beginning of regulation by state commissions. It was found that many persons would write the commission complaining of practices committed by a utility or the omission of a duty which a utility owed the public or the individual complaining. The practice involved was usually of interest only to the complainant. The same was true of the omissions of duty and in many instances where rates were involved the amount was small.

To meet this situation there has developed the modern method of handling what are called "informal complaints," through which procedure complaints may be made by one or a number of customers concerning the service, practices, facilities, and rates of a public utility with no expense to the complainant or complainants except postage and little expense to the utility and to the commission. Hundreds of these complaints are handled daily by regulatory commissions throughout the country.

If the matters complained of had not been called to the attention of the commission in this fashion and the commission's assistance asked they would, for the most part, go unsatisfied either because there would be no chance of appeal to the courts, or if they were appealable the expense of such a lawsuit would be too great to be undertaken. Such informal complaints involve every conceivable subject such as errors in the utility's bill for service, meters which are misstating the measurement of the utility service, requests for extension of both urban and rural service fluctuation in voltage of electric service, purity and quality of water, the establishment of service, and other subjects too numerous to mention.

FOR purposes of illustration let us consider the procedure followed for handling informal complaints by the public service commission of West Virginia, which is stated in what is called its "Informal Complaint Rule," reading as follows:

Informal complaints may be made by letter or other writing and as received are filed. Matters thus presented are, if their nature warrants, taken up by correspondence with the utility complained against in an endeavor to bring about satisfaction of the complaint without formal hearing.

No form of informal complaint is prescribed, but in substance the letter or other writing must contain the essential elements of a complaint, including name and address of complainant, the correct name of the utility against which complaint is made, a clear and concise statement of the facts involved, and a request for affirmative relief.

This informal procedure is found efficacious in the majority of cases, and is recommended. In the event, however, of failure to bring about satisfaction of the complaint because of the inability of the parties to agree as to the facts involved, or from other causes, the proceeding is held to be without prejudice to complainant's right to file and prosecute formal complaint, whereupon the informal proceeding will be dismissed.

A LETTER AND A POSTAGE STAMP



Commissions Must Be Close to People

REGLATORY commissions, in order to be of greater service, must be near the people affected by their functioning. This is clearly brought out by the handling of informal complaints. Could such complaints be satisfactorily handled by agencies or commissions with offices far distant from users or would-be users of a particular utility's service?"

The West Virginia commission, although working under this rule, has modified it slightly so as to include complaints made by telephone, for which blank forms have been prepared and supplied each commissioner and the secretary's office. When a complaint is made by telephone a commissioner, the commission's secretary, or other employee secures from the complainant such information and material as is pertinent and fills in the form which has been provided for this purpose. A copy of the complaint is then sent to the utility, or if the matter is one which needs urgent attention the secretary of the commission or other designated employee takes the matter up with the utility by telephone.

In many cases such complaints are handled, and satisfactorily settled, by telephone, in others the commission is required not only to take the matter up by correspondence with the utility but to send one of its employees to

make an investigation of the matters complained of and submit recommendations for their adjustment.

Unless one should examine the annual reports of some of the state commissions he would never know of the hundreds of complaints settled annually by commissions in this fashion, as they are not disposed of by formal orders made as a result of formal proceedings. They are informal and no permanent record in many instances is kept of them. Since they are usually of interest only to the complainant they have little news value and seldom are mentioned in the press. But the handling of informal complaints is a valuable service performed for the public and one that brings relief quickly and with little or no expense.

Do not gather from what has been said that all informal complaints are adjusted to the satisfaction of the complainants, or that the utility is always in the wrong and the complainant right. Some of these complaints develop into

PUBLIC UTILITIES FORTNIGHTLY

formal proceedings, some are dismissed because the utility is found not to be at fault. But it has been the experience of the West Virginia commission that in over 80 per cent of the cases the complaint has been settled to the satisfaction of the complainant.

LE^T us further consider a few informal complaints that have been before the commission.

Five families receiving natural gas service from the field lines of a natural gas utility in an isolated rural community received notice from the utility that due to the exhaustion of natural gas in the wells from which they were being served it was necessary to discontinue service to them at the expiration of ten days. Winter was approaching and these natural gas users were faced with the necessity of either remodeling their homes in order to obtain their heating requirements from coal stoves or furnaces instead of gas which they had used for a number of years, or prevailing upon the utility to serve them with natural gas from some other source of supply. They appealed to the natural gas utility, but the utility refused to do anything about it, reiterating that they had no gas available in that community.

Informal complaint was made to the commission and the procedure outlined in the informal complaint rule was followed. The utility again stated that it did not have a supply of gas to serve these five customers. The commission then sent an engineer into the community to make an investigation, during which he secured information that an affiliated company of the utility owned oil and natural gas wells in the immediate vicinity and that by running

a pipe line a short distance it could continue to serve these persons with natural gas which its affiliates had in a sufficient quantity over and above the requirements of its oil wells.

The natural gas utility, when faced with this information, consented to lay the additional pipe line and continue to serve these five families. This complaint was thus satisfactorily settled at little expense to the complainants, the commission, and the utility. If they had not appealed to the commission as they did they would in all probability have remodeled their homes in order to be able to use a substitute fuel.

ACUSTOMER of an electric utility once complained that the fluctuation in voltage at his residence was causing his lights to blink and was damaging an air conditioning apparatus which he had installed, his radio and other electrical appliances. The matter was taken up with the utility which advised the commission that it was not at fault for the reason that the complainant's household wiring was too light and small to take care of the voltage required to operate the air conditioning apparatus and that to correct the trouble he must rewire his home.

An electrical engineer of the commission was sent to the home to make a personal inspection. On investigation he found that the wires were of sufficient size to carry the load. Upon further investigation he discovered that a neighbor of the complainant had recently installed some heavy electric appliances in his home without notifying the utility and that these electric appliances, together with the complainant's, had overtaxed the transformer and that the complaint could be

A LETTER AND A POSTAGE STAMP

satisfied by installing a larger one. The result of his inspection was called to the attention of the utility and the complaint was promptly satisfied.

INFORMAL complaints to the West Virginia commission involving fluctuation of voltage have been numerous and in the vast majority of cases upon investigation it has been found that the transformer was either too small or was placed in an improper location and did not provide proper spacing.

One day a member of the commission received a telephone call from a resident of a large city to the effect that his home had been without water for three days; that the water company had disconnected his service at the meter; that a member of his family was seriously ill, and that it was imperative that service be restored. This matter was taken up with the utility by telephone and upon investigation it was found that this particular residence was in a duplex house served through one meter and that the person living in the other part had failed to pay his water bill and that the utility had disconnected service at the meter. Since both households were served through the same meter water service was discontinued to the complainant who had in the past promptly paid his water bill. The utility was advised to forthwith

install two meters, one for each household, which was done and the complainant, within four hours after he had telephoned the commission, was receiving service.

Complaints that meter readings are excessive and that the meter is falsely measuring the utility service are numerous. In many cases, however, on investigation such complaints become boomerangs to the complainants as the meters are found to be slow instead of fast and would, if the utility insisted, result in a backcharge against the customer for utility service used.

During the unusually hard winter of 1936 many services and meters were frozen and many homes were without water service. The commission received numerous telephone calls to the effect that emergencies existed. These cases were promptly called to the utility's attention and the thawing out of these services and meters were given preference over others.

ANOTHER instance of the effectiveness of the informal complaint procedure is where two tenants occupied a building and one thought his bill for electric service was too high and wrote the commission accordingly. Upon investigation it was found that the service to both tenants was reduced through one meter and that the utility was charging each tenant for the full



G"...informal complaints involve every conceivable subject such as errors in the utility's bill for service, meters which are misstating the measurement of the utility service, requests for extension of both urban and rural service, fluctuation in voltage of electric service, purity and quality of water, the establishment of service, and other subjects too numerous to mention."

PUBLIC UTILITIES FORTNIGHTLY

amount of the current registered on the meter. This practice was, of course, corrected at once without expense to the complainant.

Do not assume from the above illustrations that the utility is always at fault. Many informal complaints are filed concerning matters over which a state commission has no jurisdiction and others are filed in which the complainant and not the utility is at fault. Several humorous and interesting complaints have been received.

A person complained that a natural gas utility had refused to extend service to his farm. The complaint was investigated without expense to the complainant and the natural gas company was required to make the requested extension. This person, not being familiar with the jurisdiction of the commission, some three weeks after his complaint had been satisfied, wrote and thanked the commission for what it had done and in closing stated that he wanted to ask one more favor, namely, that he and a neighbor were having trouble over a line fence and would the commission please send one of its men to make an investigation of the matter for him. Of course, he was promptly advised that the commission had no jurisdiction over line fences.

IN another case a person complained of a natural gas utility that its meter reader was insulting to his wife; that every time he came to read the meter he tried to engage his wife in conversation which was not only embarrassing to her but to which he said she took exception. He asked that the commission require the utility to dismiss the meter man or transfer him to another territory. Without committing itself as to

jurisdiction of the subject matter of the complaint the commission took the matter up with the natural gas utility and was later advised that the meter man had been transferred to another territory.

Other complaints that have been filed concern the size of lamps that should be used by farmers in incubators and brooders and requests for the commission to send someone to adjust electric milkers.

All requests for rural electric extensions are in the first instance handled under the commission's informal complaint rule.

The conclusion naturally follows that this is an important feature of commission work and its effectiveness no doubt is attributable to the fact that these complaints are handled quickly and with little expense and cover matters which would in the most part go unsatisfied if this procedure was not followed. The effectiveness of this procedure is further made possible because in most states the members of the commission or one of its staff are usually familiar with the territory in which the complainant resides, usually with the complainant and, of course, knows at once the officer or agent of the utility to whom the informal complaint should be addressed. In turn the officers and employees of the utility are familiar with the commission's activities in connection with these complaints and render, in the vast majority of instances, quick and wholehearted coöperation.

THE very fact that informal complaints are handled in the manner herein described has undoubtedly had a wholesome effect upon the re-

A LETTER AND A POSTAGE STAMP

lation between a public utility and its customers in that the former, knowing of the commission's informal complaint procedure, in many cases satisfies the customers' complaints made to it in the first instance, thereby giving the customer relief without requiring him to complain to the commission, and thus relieving the commission of the duty, time, and expense of handling such complaints.

This is a phase of commission routine work that the critics of state regulation have failed to mention. It is of great importance to those who complain and a matter which should be given more publicity by state regulatory agencies.

Informal complaints are handled by commissions as a part of their routine duties. Many other matters take up the majority of their time. That they function in the public interest is borne out by the report of the special committee on Progress in Public Utility Regulation of the National Association of Railroad and Utilities Commissioners made at the association's 1937 convention, which among other things shows that for the 3½-year period from January 1, 1933, to June 30, 1936, public service commissions throughout the country have secured, through formal proceedings and the medium of negotiations and compromise, for the users of telephone, electric, water, gas, and other utility service, but excluding

transportation service, savings in the amount of \$177,798,059 annually. In this day when in speaking of the country as a whole we usually use the term billions, \$177,798,059 might seem rather insignificant, yet such savings are not to be sneezed at.

It is submitted that utility regulation by constituted state agencies is effective and carries out the purposes for which they were created in a manner important and vital in the public interest. State regulation is only as effective as the lawmakers of a state say that it shall be. To have effective regulation the commission must be equipped with an adequate appropriation in order to employ engineering, accounting, and other experts that are able to cope with the important problems that every day confront the regulator.

A small appropriation invariably means a less effective commission. Adequate appropriation, it has been proven, results in effective regulation.

Regulatory commissions, in order to be of greater service, must be near the people affected by their functioning. This is clearly brought out by the handling of informal complaints. Could such complaints be satisfactorily handled by agencies or commissions with offices far distant from users or would-be users of a particular utility's service?

Municipality to Sell Electrical Appliances

THE U. S. Electric Home and Farm Authority announced last February that a contract had been closed with the city of Dyersburg, Tennessee, which owns and operates the local municipal utility. The contract provides that Electric Home and Farm Authority and the utility will coöperate in financing the sale of electrical appliances for use by consumers located on the utility's power lines.

39.3
paid
whil
pora
per
addi
ties
over
hou
paid
com
in t
and
com
able
cha



The Electric Tax and Rate Millstones

Make Rough Going for Private Ownership

If governments insist that labor's share of electric utility returns shall be undisturbed, and that charges to the ratepayers shall constantly be decreased, while their tax collectors grab more and more of the earnings for the governments' own use, then, in the opinion of the author, public ownership is almost sure to result.

By ERNEST R. ABRAMS

WERE the service rates of privately owned electric power and light utilities in the United States not so completely under the control of public regulatory bodies whose every effort is directed toward their further reduction, and had not the Federal government given the full weight of its support to that endeavor, the ever-growing burden of taxation which has been imposed upon them, year after year, would not constitute the crushing load that it does today. Although their combined tax bill in 1935 was more than ninety-four times greater than in 1902 while their combined operating revenues had multiplied by but twenty-four, the political and social philosophy that now dominates our Federal, state, and local governments demands continued pressure for lower electric rates and a steady increase in the proportion of total operating revenues which must be devoted to public use.

The full measure of the burden of current taxes can best be indicated by the experience of specific utility companies. Consolidated Edison Company of New York paid 19.99 per cent of its total operating revenues in taxes during 1935, which amount was equivalent to 80.98 per cent of the net revenues that were available to meet its fixed charges. Likewise, Consolidated Gas Electric Light & Power of Baltimore paid 12.09 per cent and 40.58 per cent, respectively; Edison Electric Illuminating of Boston paid 18.18 per cent and 66.85 per cent; and Commonwealth Edison of Chicago paid 15.28 per cent and 61.06 per cent. Among those utilities whose service areas are more closely confined to smaller communities and rural districts, Public Service of New Jersey paid 15.89 per cent and 49.12 per cent; Metropolitan Edison in Pennsylvania paid 10.38 per cent and 38.00 per cent; Niagara Hudson Power paid 14.50 per cent and

THE ELECTRIC TAX AND RATE MILLSTONES

39.34 per cent; Pacific Gas & Electric paid 12.16 per cent and 29.13 per cent; while Commonwealth & Southern Corporation paid 11.55 per cent and 27.97 per cent, respectively. These and six additional electric power and light utilities, whose collective sales represented over 50 per cent of all the kilowatt hours consumed in the United States, paid a total of 14.31 per cent of their combined operating revenues in 1935 in the form of taxes to Federal, state, and local governments, or a sum which was equivalent to 42.74 per cent of the combined net earnings that were available to meet their combined fixed charges.

THE privately owned electric power and light utilities of the country are today being ground between the upper millstone of governmentally directed rate reductions and the upheaving mass of governmental tax exactions, a condition which, if continued indefinitely, will so narrow their profit margins that insolvency or socialization of the industry must inevitably result. It is, accordingly, the purpose of this study to inquire into the circumstances that have been responsible for the burdensome governmental exactions of today and to forecast the future effect of increasing taxation and declining rates upon the industry.

Modern taxation in this country is based largely on the faculty theory which holds that the extent of taxation should be measured by the ability to pay and, to a lesser degree, on the expediency theory which advocates the securing of a maximum of taxes with a minimum of protest. Practically all of the commodity or "hidden" taxes of today fall within the expediency base.

The ability to pay is largely determined by measures of wealth, expenditure, and income; with property taxes levied on wealth; excises, customs, and sales taxes on expenditure; and income taxes on income.

The expediency theory, in practice, is diametrically opposed to the faculty theory since commodity taxes fall with greatest force on those of little income who must, of necessity, spend a relatively greater proportion thereof for commodities. Yet, the ease of their collection and the minimum of "squawking" incident thereto, rather than their social justice, have been responsible for their wide use under a system of government wherein the large majority with small incomes and little understanding of taxation have the major voice in the selection of their governing officials.

WEALTH can, in practice, serve as a basis for taxation only so long as it is productive of income, since the continued taxation of nonproductive wealth results in its eventual extinguishment. Furthermore, since the value of wealth is largely determined by the income produced, a severe decline in earning power greatly reduces the productivity of wealth as a tax base. Income, from the viewpoint of the tax collector, is an ideal source of governmental revenue since it automatically produces the funds with which to meet the taxes levied against it but it, too, possesses the inherent disadvantage of sharp decline in volume during periods of business depression.

Expenditure as a basis for taxation has proven the most stable of the three fields, especially when taxes are levied against the purchase of articles of great

PUBLIC UTILITIES FORTNIGHTLY

common consumption, and its use as a field for governmental exactions will doubtless be expanded in future years. Past attempts at expenditure taxation have taken the form largely of luxury taxes and have been productive only during periods of great general prosperity. With the extension of such taxes to the field of daily necessities, however, they are destined to produce an ever-growing proportion of all governmental exactions.

All taxes may also be divided into direct taxes, which are designed to be borne in the end by the original payer, and indirect taxes, which it is contemplated at the time of levy will be shifted to others by the original payer. The general test of the shiftability of any tax is the degree of elasticity existing in the demand for the taxed commodity.

Generally speaking, property and income taxes may be considered as direct taxes while sales, gross receipts, production, and franchise taxes, in the absence of prohibitive restrictions, may be classed as indirect taxes.

THE history of taxation in the United States has been dominated by wars and business depressions. The tax burden of the country more than doubled in the 1860-1870 decade and its upward trend was not broken until the business depression of 1873 com-

elled the taxing authorities greatly to reduce their demands. The upward movement was resumed as soon as the force of that depression had been spent and was not again checked until the depression of 1893 and then but temporarily. The brief economic disturbances of 1907 and 1920 failed to appreciably retard their continued advance and not until the business depression took its grip on the country in 1930 was the forward surge of taxation arrested.

Every war has enormously increased governmental expenditures to a degree that was utterly unbelievable in advance of hostilities and these staggering expenditures have increased the tax burden to such a level that, were not the patriotic fervor of the public at so high a pitch, violent protest would have resulted. And, likewise, every business depression with its resultant shrinking of incomes and its drastic decline in values, has brought forth tax crises that have uniformly resulted in demands for tax reforms and usually much ill-advised tax legislation. However, tax reforms have a tendency to resolve themselves into tax increases and the desired relief from burdensome taxation has generally failed to materialize.

The trend of governmental exactions can best be portrayed by a tabulation of collections at intervals since the turn of the century.



Q"THE privately owned electric power and light utilities of the country are today being ground between the upper millstone of governmentally directed rate reductions and the upheaving mass of governmental tax exactions, a condition which, if continued indefinitely, will so narrow their profit margins that insolvency or socialization of the industry must inevitably result."

THE ELECTRIC TAX AND RATE MILLSTONES

ALL TAX COLLECTIONS—MILLIONS OF DOLLARS			
Fiscal Years	Total	Federal	State and Local
1902	\$1,255	\$ 530	\$ 725
1912	2,131	667	1,464
1922	7,428	3,204	4,224
1932	8,147	1,789	6,358

FEDERAL taxes and expenditures increased but slowly during the first sixteen years of the present century and then were swept to fantastic high levels by our participation in the World War. Although the huge expenditures incident to the war were never fully covered by taxes, Federal levies and collections in the 1920 fiscal year did reach the staggering total of \$6,690,000,000. With the removal in later years of the special war taxes, Federal levies declined sharply but still produced a sufficient surplus over operating expenses to reduce the Federal debt more than nine billion dollars.

The tax levies and collections by state and local governments, however, present a wholly different trend. Not only did their exactions double in the 1902-1912 decade but they had increased 5.8 times by 1922 and nearly 8.8 times by 1932 while population of the country had increased but 0.6 times. Nor was there any corresponding decrease in their exactions after 1921 as occurred in Federal levies. Yet these vastly increased tax collections failed miserably to keep pace with state and local governmental expenditures. Between 1914 and 1930 alone, more than fourteen billion dollars in new bond issues were sold to finance their construction projects and the steadily mounting service charges on these obligations were measurably responsible for the growing tax burden.

Prior to 1910, the Federal government depended almost entirely upon customs and internal revenue from to-

bacco and liquors with only around 2 per cent of its revenues coming from other sources. The corporation excise tax on incomes was first levied in 1910 and in its first five years produced only about 5 per cent of Federal revenues. However, with the ratification of the Thirteenth Amendment by the several states, individual incomes became available to the Federal government as a tax base and, under the stress of war demands, taxes thereon were enormously increased. Combined corporate and individual Federal income taxes produced nearly four billion dollars in 1920 and almost two and one-half billions or 70 per cent of all Federal tax collections in 1930.

DURING the early years of the century, property taxes constituted practically the total of state and local collections and as late as 1912 represented around 90 per cent of the whole. Even in 1930, nearly three-quarters of all state and local taxes were levied on property. Of the nine billion dollars of increased tax collections by all governments between 1902 and 1932, approximately seven billions or about three-quarters of total tax collections resulted from taxes on property and on individual and corporate incomes.

The business depression of 1930 demonstrated, however, for the first time during the existence of both individual and corporate income taxes, and for the first time in more than four decades in the life of property taxes, that both were in considerable measure fair weather taxes. With the drastic decline in individual and corporate income and the near vanishing of capital gains, the yield to the Federal government for the 1933 fiscal year dropped

Tax Crises and Their Results



"... every business depression with its resultant shrinking of incomes and its drastic decline in values, has brought forth tax crises that have uniformly resulted in demands for tax reforms and usually much ill-advised tax legislation. However, tax reforms have a tendency to resolve themselves into tax increases and the desired relief from burdensome taxation has generally failed to materialize."

to \$746,000,000 or but little over one-third of the 1930 yield. Values like incomes shrank sharply under the withering blast of depression and although property still existed, its markets were so demoralized that it could not be sold, even at greatly reduced prices or at tax sales. As a result of the collapse of the two major bases of taxation which had so long served so plentifully, all government budgets—Federal, state, and local—were thrown badly out of balance and the immediate problem of finding new sources of revenue was precipitated. Gasoline and cigarettes were demonstrating the possibilities that existed in the field of expenditure, and taxing authorities at once started a search for some commodity which the public was continuing to purchase in depression years in quantities that approximated the demand of boom days.

ELECTRICITY completely fulfilled all of the necessary requirements. Despite the sharp decline in the personal incomes of consumers, they were actually increasing their use of electric energy, having purchased 11,986,000,000 kilowatt hours in 1932 at an average cost of 5.88 cents per unit as

compared with 9,772,000,000 kilowatt hours at an average cost of 6.33 cents per unit in the boom year of 1929. Here then was an industry admirably suited to the needs of the emergency and both Federal and local governments not only increased existing taxes but devised new taxes on the use of electric energy.

Any industry which served the great mass of the people would naturally have been expected to bear its proportionate share of the national tax bill and electric power and light utilities, most certainly, have not shirked their responsibilities. Starting with 1902 and continuing at intervals of five years through 1932, the privately owned electric utilities have paid 3.44 per cent, 4.06 per cent, 4.89 per cent, 6.43 per cent, 8.28 per cent, 9.46 per cent, and 11.73 per cent, respectively, of their total operating revenues in Federal, state, and local governmental exactions. In 1933, 1934, and 1935, the proportion of total operating revenues paid to all governments amounted to 12.70 per cent, 14.10 per cent, and 13.80 per cent, respectively. The percentage decline in 1935 from the preceding year was not occasioned by any decline in the total tax bill but resulted,

THE ELECTRIC TAX AND RATE MILLSTONES

rather, from the greatly stimulated purchases of electric energy by consumers in the latter year, the actual dollar amounts of taxes that were paid in each of the past four years having been \$203,858,000 in 1932, \$215,000,000 in 1933, \$245,000,000 in 1934, and \$251,000,000 in 1935. About one-third of total 1935 taxes, or \$83,000,000, was paid to the Federal government while about \$168,000,000 was paid to state and local governments.

THE full burden of this tax imposition can best be visualized by its reduction to a unit basis and by comparison with 1931, a year that approximates the average of the depression in prosperity. Total taxes amounted to \$251,000,000 in 1935 against \$210,000,000 in 1931; these taxes were equivalent to \$10 in 1935 against \$8.10 in 1931 for every customer of the electric utilities although total customers increased from 24,412,424 in 1931 to 25,112,026 in 1935; taxes in 1935 consumed 13.8 cents of every operating dollar received against 10.6 cents in 1931; taxes in 1935 represented 35.7 per cent of all revenues received from residential consumers as compared with 34.0 per cent in 1931; and taxes in 1935 equaled the total payments received from 7,418,140 average residential customers as against but 6,170,000 household users in 1931. Electric power and light utilities in each year since 1929 have found themselves paying higher taxes, both in dollar amounts and in percentages of total operating revenues, than they paid at the very peak of prosperity.

During this 1902-1935 era of steadily mounting taxes, the average charge made by the electric power and light

utilities for residentially consumed energy has never failed to register, year after year, a substantial decline in unit cost. Indeed, this steady decline has been in existence since the establishment of the industry in 1882, in which year the average rate per kilowatt hour to householders was 25 cents. This average rate had declined by 1895 to 21 cents, by 1900 to 17 cents, and by 1902 to 16.2 cents. Continuing at intervals of five years through 1932, the respective average costs per kilowatt hour to residential consumers were 10.5 cents, 9.10 cents, 7.52 cents, 7.38 cents, 6.82 cents, and 5.58 cents. For the three years 1933-1935, the average rates to residential users were 5.49 cents, 5.30 cents, and 5.03 cents.

WHILE the proportion of total operating revenues that was consumed by governmental exactions rose from 3.44 per cent in 1902 to 13.80 per cent in 1935, or 301.2 per cent, the average kilowatt-hour cost of electric energy to residential users declined from 16.2 cents in 1902 to 5.03 cents in 1935, a decline of 11.17 cents per kilowatt hour or 68.9 per cent. To cite the history of the past ten years, the consumption of total operating revenues by taxes increased from 9.35 per cent in 1926 to 13.80 per cent in 1935 or 47.5 per cent while the average residential rate declined from 7 cents in 1926 to 5.03 cents in 1935 or 28.1 per cent.

Not only has the average residential rate for electric energy declined during the past decade but the rates to all other customers and the total realization per kilowatt hour sold to ultimate consumers have declined as well. The average revenue per kilowatt hour from sales

PUBLIC UTILITIES FORTNIGHTLY

to small commercial consumers decreased from 4.51 cents in 1926 to 3.79 cents in 1935 or 15.9 per cent, to large commercial or industrial consumers from 1.49 cents to 1.27 cents or 14.7 per cent, for street lighting from 4.28 cents to 3.92 cents or 8.4 per cent, and for transportation from 0.97 cents to 0.88 cents or 9.2 per cent. The realization for all sales of kilowatt hours declined from 2.71 cents in 1926 to 2.48 cents in 1935 or about 8.5 per cent.

The experience of all regulated industry in the public service has followed a somewhat similar pattern, although no other public service has had so heavy a burden of taxation imposed upon it as has the electric power and light industry. The manufactured gas industry paid 9.58 per cent of total operating revenues in the form of taxes to governments in 1930 and 11.70 per cent in 1934, an increase of 22.1 per cent; the natural gas industry paid 7.02 per cent in 1930 and 8.90 per cent in 1934, an increase of 21.1 per cent; the telephone industry paid 8.24 per cent and 9.76 per cent, an increase of 18.4 per cent; the electric railway industry paid 7.25 per cent and 7.78 per cent, an increase of 7.3 per cent; the steam railroad industry paid 7.25 per cent and 7.32 per cent, an increase of 0.1 per cent; the telegraph industry paid 3.06

per cent and 3.66 per cent, an increase of 19.6 per cent; the railway express industry paid 1.22 per cent and 1.88 per cent, an increase of 52.8 per cent, while the electric power and light industry paid 8.94 per cent in 1930 and 14.10 per cent in 1934, an increase of 57.72 per cent.

THE steam railroads, of all the regulated industries in public service, more closely compare with the electric power and light utilities than with any other division, both in the total investment in their operating property and in their total operating revenues. The total investment in road and equipment of the American steam railroads was approximately \$25,450,000,000 in 1932 as compared with a property investment of \$12,665,000,000 in private electric utilities and their total operating revenues were \$3,168,000,000 in the same year as compared with \$1,833,000,000 for the electric utilities.

From the standpoint of taxation in relation to total operating revenues, however, the steam railroads of the country have fared much better than have the electric utilities. Railroads in 1902 paid 3.15 per cent of total operating revenues to governments against 3.44 per cent of electric utilities; in 1907, 3.10 per cent against 4.06 per



G"STARTING with 1902 and continuing at intervals of five years through 1932, the privately owned electric utilities have paid 3.44 per cent, 4.06 per cent, 4.89 per cent, 6.43 per cent, 8.28 per cent, 9.46 per cent, and 11.73 per cent, respectively, of their total operating revenues in Federal, state, and local governmental exactions. In 1933, 1934, and 1935, the proportion of total operating revenues paid to all governments amounted to 12.70 per cent, 14.10 per cent, and 13.80 per cent, respectively."

THE ELECTRIC TAX AND RATE MILLSTONES

cent; in 1912, 4.07 per cent against 4.89 per cent; in 1917, 5.31 per cent against 6.43 per cent; in 1922, 5.43 per cent against 8.28 per cent; in 1927, 6.13 per cent against 9.46 per cent; in 1932, 8.81 per cent against 11.73 per cent; in 1933, 8.08 per cent against 12.70 per cent; in 1934, 7.35 per cent against 14.10 per cent; and in 1935, 6.86 per cent against 13.80 per cent. Not only have the taxes of the railroads as expressed in percentage of total operating revenues declined during the depression while those of the electric utilities have largely advanced but railroad taxes in 1935, still expressed in percentage of total operating revenues, were only 121 per cent above 1902 while those of the electric utilities had increased 301 per cent. In absolute dollar payments, railroad taxes in 1935 had multiplied by but 4.4 times since 1902 while the taxes of electric power and light companies had multiplied 94.5 times.

FIVE distinct taxes were levied upon the privately owned electric power and light utilities by the Federal government during 1935, these being the Federal Income Tax, Federal Capital Stock Tax, Federal Unemployment Insurance Tax, Federal Tax of 3 per cent on Electric Energy, and the Federal Excise Tax, while two additional Federal taxes — the Social Security Tax and the tax on undistributed earnings —will be collected during 1937. These five Federal taxes which were responsible for about one-third of total electric utility tax collections during the year were, however, small in number when compared with those levied by state and local governments.

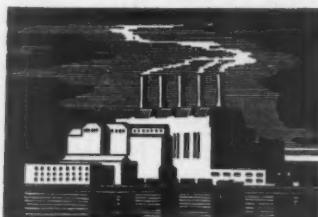
During 1935, the District of Colum-

bia and every state in the Union but Delaware levied on the tangible and personal property of the electric power and light companies within their boundaries, while the District of Columbia and every state except Georgia, Nebraska, Nevada, and New Hampshire levied some form of taxes on their gross revenues. Of the forty-nine sovereign bodies, twenty-nine also levied in some manner on the net revenues of their electric utilities. Although no uniformity existed in the pattern of taxation, the following twenty separate and distinct taxes, in addition to miscellaneous taxes, were generally levied by one or more of the states and the District of Columbia:

Real Estate Taxes
Gross Receipts Taxes
Personal Property Taxes
Excess Dividend Taxes
Unemployment Insurance Taxes
Sales Taxes
Stock Transfer Taxes
Corporation Loan Taxes
License Fee Taxes
Gasoline and Oil Taxes
Real Estate of Corporations Taxes
Gross Earnings Taxes
Special Franchise Taxes
Capital Stock Taxes
Income Taxes
Kilowatt-hour Output Taxes
Stock Issue Taxes
Severance Taxes
Motor Vehicle Registration Taxes
Motor Vehicle Carrier Taxes

WITH respect to the taxes levied by local governments, their number was legion and was determined only by the inventive genius and the local strength of the administration in office. For example, Consolidated Edison Company of New York paid the following major taxes, exclusive of miscellaneous taxes, to state and local governments during 1935:

Real Estate Taxes
Special Franchise Taxes



Federal Electric Utility Taxes

“FIVE distinct taxes were levied upon the privately owned electric power and light utilities by the Federal government during 1935, these being the Federal Income Tax, Federal Capital Stock Tax, Federal Unemployment Insurance Tax, Federal Tax of 3 per cent on Electric Energy, and the Federal Excise Tax, while two additional Federal taxes—the Social Security Tax and the tax on undistributed earnings—will be collected during 1937.

New York City Excise Taxes
Excess Dividend Taxes
Real Estate of Corporations Taxes
Gross Receipts Taxes
Gross Earnings Taxes
New York State Capital Stock Taxes
New York State Unemployment Insurance Taxes

While it is true that other articles of great common use, notably gasoline and cigarettes, bear a relatively heavier tax burden than does electric energy, these are not articles whose retail prices are determined or regulated by governmental bodies. The total cost of a pack of popular cigarettes in New York today represents a payment of 6½ cents to the purveying combination of manufacturer-distributor, plus a contribution of 6 cents for governmental use, and were that governmental imposition to be increased, the added burden would be borne solely by the customer in an increased retail price. Any shifting of further tax impositions on electric energy to the consumer, however, is effectively pro-

hibited—even without the restrictions and prohibitions with which the levying bodies usually surround them—by governmentally enforced reductions in consumer rates that seemingly must be granted, year after year. Accordingly, it is not to be expected that the electric power and light industry will receive any great measure of relief in future years but rather there are many indications that additional taxes will be devised to increase their already heavy burden.

THAT the primary objective of the Federal government in its recently expanded activities in the electric power and light field is substantially reduced rates must be evident to all observers. Writing on "The Future of Electric Power" in *The New Republic*, Morris L. Cooke, former Rural Electrification Administrator and a recognized spokesman for the Roosevelt administration on

THE ELECTRIC TAX AND RATE MILLSTONES

power matters, stated, "Uncle Sam's ultimate objectives in the power field are fairly clear. Recognizing electricity as an absolute necessity in modern life, he has determined that the supply must be plentiful, widely distributed—and cheap." Again, "The demand for lower rates is the heart of the drive against the electric utilities." Still further along, in referring to the re-election of President Roosevelt, he stated, "As one result of the election, a marked decrease in retail rate levels and a rapid increase in domestic consumption are to be expected over the next four years." And, in conclusion, "One may well anticipate during the next four years a further but always friendly control of private power agencies in their own as well as the public interest,—and a more intensive drive on retail rates, commercial and domestic."

These are clear and understandable statements and assuming as we must that Mr. Cooke speaks for the administration, no doubt whatever should exist in any mind that the Federal government intends, by every necessary means, to greatly lower the cost of electric energy to residential, farm, and small commercial consumers in the United States. And, since the primary concern of the consuming public is the procurement of the best electric service at the lowest rates, little popular opposition to the objectives outlined by Mr. Cooke is likely to appear. Although many of the vehicles now employed by the Federal government in their rate-reducing efforts must still run the gauntlet of the courts, it is assumed for the purpose of this discussion that final approval of these measures will be received or that other and constitu-

tional means of accomplishing its objectives will be devised.

Low cost of electric energy, however, is but one phase of the electric power and light problem of today. As President Compton of Massachusetts Institute of Technology recently stated before the Public Utilities Forum of the Investment Bankers Association, this problem centers largely "around the question of how large the profits shall be and who shall get them: the stockholders as a dividend on their investment, the government by taxation or ownership, the consumer through reduced rates, or the employee in increased wages." Obviously, no one of the four interested parties can obtain a disproportionate share of these profits without violating the rights of one or more of the other parties. The share of these profits that labor is to receive is definitely not susceptible of downward revision and even were such an anti-social adjustment to be made, the measure of relief afforded the electric utilities would be slight, due to the relatively small proportion of operating costs that is consumed by labor.

With this statement of the problem clearly in mind, the present contest between two functions of government —tax collection and public service regulation—to divert disproportionate shares of these electric profits to their respective fields appears, from the long-term point of view, not only to be ill-advised and inequitable but positively ridiculous. For it must not be forgotten that while the tax-gathering agencies of government — Federal, state, and local—have increased their collections from the electric utilities by

PUBLIC UTILITIES FORTNIGHTLY

301 per cent or more than ninety-four-fold since 1902, during a period when total operating revenues have increased but twenty-four-fold, residential rates for electric energy, in considerable part at the instigation of regulatory bodies, have decreased 68.9 per cent and are now at the lowest point in the history of the industry.

If there were any assurance that the existing basis for division of electric profits would be maintained for even a reasonably short period, the heavy tax burdens and reduced rates of today would not constitute insurmountable hurdles in their forward path, since both total operating revenues and total net earnings of the electric power and light industry in 1935 registered marked improvement over preceding depression years, which improvement was continued into the closing months of 1936.

But the status quo in the division of electric utility profits definitely will not be maintained. With the Federal government firmly committed to a policy of further and substantial reductions in electric service rates, and with every indication that the electric power and light companies will be called upon to bear a continuing increase in their already heavy tax burdens, the further diversion of disproportionate shares of their profits to the ratepayers and to the tax collectors seems inevitable. And, with labor's share of the profits unsusceptible of downward revision, and with the shares of the consumers of electric energy and the taxing agencies definitely on the increase, not even an Einstein is required to determine that the one party to the enterprise who is to receive a constantly decreasing

share of the profits is composed of those who furnished the capital for the enterprise.

UNFORTUNATELY, the electric power and light industry is an unusual business in that between \$5 and \$6 of capital are required for each dollar of annual operating revenues produced, whereas the average for all industry in the United States in 1932 was but 71 cents of investment for each dollar of annual gross revenue produced. If consumption of electric energy is to be vastly increased in future years, as Mr. Cooke has predicted, then a considerable volume of funds must be invested in additional generating capacity and distribution facilities, and further funds must be forthcoming as demand continues to climb.

M. R. Cooke, in his "The Future of Electric Power," after discussing the possibility of private industry recognizing the government's entire right to adequately control and regulate the electric power and light industry, said :

The industry really has been slipping and fighting only rear-guard actions, especially during the last ten years. Continuation of this strife may retard such things as the lowering of rate levels to a cost-plus-fair-profit basis; but the end result is almost sure to be public ownership on a wide scale.

This would appear to be a very competent prediction; if government insists that labor's share of electric utility returns shall be undisturbed and that charges to the ratepayers shall be constantly decreased while its tax collectors grab more and more of its earnings for government's own use, then widespread public ownership is almost certain to result.



Sunshine and Shadows of A Utility Commissioner's Life

There's a funny side also to the job and great medicinal value in an occasional deep belly laugh.

By WILL M. MAUPIN
MEMBER, NEBRASKA STATE RAILWAY COMMISSION

I REALIZE, as I sit in my rather palatial office in Nebraska's twelve million dollar capitol (paid for without a bond issue when completed) that many there be who envy me not only my palatial surroundings but the five thousand dollars a year salary—to say nothing of it's being the only 6-year term in the building, justices of the supreme court excepted. I will admit that it is all very fine after batting around for fifty years as a newspaperman, but it isn't all beer and skittles. There is the panhandler who comes in with "I voted for you," and then hints that he is a little short and would like to have a small amount for a few days. Those few days are now numerous enough to stretch into centuries, if laid end to end. Comes then the ticket seller for this and that, and the ticket sellers always head straight for the capitol. The banquets and dinners I have purchased tickets for and never attended would feed an average family for a month.

The committee that sends you a bunch of tickets and expects you to either remit or return, is my pet peeve. If I bought them all I'd be broke most of the time, but as it is I'm broke only a small part of the time. And if I return them I'm a cur, a tightwad, an ingrate, and lacking in appreciation. Otherwise, I may be all right.

A community protests against its telephone rates and demands a reduction. A study of the certified reports prove that the company is "in the red," has not paid a dividend in years, and is slowly disintegrating because of insufficient revenue. When the request is denied I am one of three commissioners who are owned and controlled by the utilities. When a sizeable reduction is made in freight rates I am one of three commissioners who never receive a word of appreciation.

But I like the job, just the same.

THERE is the reception and banquet to some distinguished visitor,

PUBLIC UTILITIES FORTNIGHTLY

maybe a visiting statesman, or a distinguished soldier, or a new football coach for the university squad. Out must come the old "soup and fish" from its hiding place in a nest of mothballs, a couple of tickets at two or three dollars per, and a seat amidst the mighty at the head table. Then the next day the criticism from some envious brother that we are going "high hat."

But I am enjoying the position very much.

A utility official whom I have known for years meets me on the street and we stop to enjoy a few minutes of personal reminiscences. The next day I hear that I am too friendly with the utilities. I reckon I really should pass my old friend by with a scowl—but I'll not. There are some friendships that are too precious to trade off for a public office.

I enjoy those friendships far more than I do sitting in a leather upholstered swivel chair and poring over transcripts of long and tedious hearings.

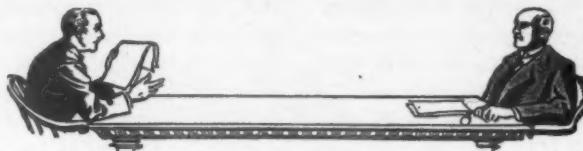
AGAIN, there are those who think that because I am a member of a commission regulating public utilities, all I have to do is to write a letter to some utility manager and land a job for them. Nothing gives me more pleasure than to land a job for a deserving friend, but when I decline to recommend them to a public utility I am an ingrate, lacking in sympathy and undeserving of further notice.

When I decide against a public utility request—and I often have—the applicant smiles, bids me goodby in a cheery fashion, and we continue to be good friends. When I decide in favor of a public utility—which I am often compelled to do because the law and the

facts must guide—I have betrayed the trust imposed in me by the public. The only solace in the last instance is that it is a minority that so declares, but ye gods and little fishes, what a vociferous minority! More than fifty years in the newspaper business and some experience in politics have convinced me that a small minority can vocalize tremendously, and too often effectively. When vocal enough the minority often deceives the quiet majority, just as the half-dozen frogs deceived the Arkansawyer into believing he could furnish a thousand frog legs a day to the New York restauranteur. Fortunately, in such instances, the public is often afflicted with short memories.

HOWEVER, there is comfort in the knowledge that those who are familiar with real public affairs, and who know the problems confronting a utility commissioner, believe that commission decisions are founded on facts and law, and that if the findings are prejudicial to the public it is the fault of the law John Q. Public demanded in the first instance. I would rather have the commendation of the man who knows than the approbation of the many for a ruling founded on prejudice.

Now and then I receive a letter denouncing me and the commission for some ruling, and reminding me that I may be a candidate for reëlection, and if I am I'd better be changing my course. Once upon a time I actually received a letter of commendation. It is treasured in the family archives, and when memory reverts to it the sun shines a little brighter. Happily the other kind of letter is soon forgotten. Reëlection is on the knees of the gods,



Reactions to Commission Decisions

“When I decide against a public utility request—and I often have—the applicant smiles, bids me goodby in a cheery fashion, and we continue to be good friends. When I decide in favor of a public utility—which I am often compelled to do because the law and the facts must guide—I have betrayed the trust imposed in me by the public. The only solace in the last instance is that it is a minority that so declares, but ye gods and little fishes, what a vociferous minority.”

and there are “three long years” before I have to think seriously about it.

RIght now, as I write these maunding lines, Nebraska’s unicameral legislature is in session. The usual number of bills concerning the Nebraska State Railway Commission have been introduced. One would abolish the commission entirely and substitute the courts. Another would abolish the elective commission and enable the governor to appoint. Another would increase the commission from three to five members, and elect them on a nonpartisan ticket by districts. Eleven or seven times a day friends ask me what I think of all these proposals. My reply is that I don’t give a whoop in a rain barrel about them. Under Nebraska’s Constitution and recent supreme court decisions the adoption of any one of those proposals wouldn’t concern me for another four years, so why worry! My present, and only, con-

cern is to do my official duty as I see it, let the brickbats and dornicks smite where they may.

One of the shadows is that when there is disagreement among the commissioners my newspaper friends play it up, and the public gets the erroneous idea that the commission is not functioning. But the sun shines through when I go back to the record and learn that more than 99 per cent of commission orders are adopted unanimously, and the 1 per cent do not amount to a great deal, anyhow. Disagreements are all right, provided the fellow who disagrees does not doubt your honesty but merely doubts your judgment.

THE duties of a utility commissioner are many and arduous, but even so, now and then I find time to sit down in front of the battered old typewriter that has been my companion on many a thousand miles of newspaper journeying, and pound out something

PUBLIC UTILITIES FORTNIGHTLY

like this. Unless you have had experience similar to mine you cannot appreciate how gloriously the sun shines on such occasions. It is worth all the work, the worry, and the criticisms.

Nothing amuses me more than the spectacle of a man who takes himself too seriously. I am not obsessed by any notions of the grandeur of my official position. If there is any grandeur about it I have yet to discover it. But I am impressed by its responsibilities. During my long span of life I have discovered that a sense of humor enables a man to get over a lot of rough spots without unduly jarring his spine.

Being a public official these are the days when I am often asked what I think about F. D. R.'s attitude towards the Supreme Court. Politically I am prejudiced in his favor; personally I am against him on the age limit matter, having passed the allotted Biblical age by a fraction more than three years. But I am measuring life by heart beats, not by years, which means a lot of sunshine where shadows might be.

WHAT has all this got to do with a periodical supposedly devoted to serious and technical, to say nothing of legal, subjects? Nothing at all, unless it be admitted that it is not well to be too darned serious about anything, including death and taxes. Experience teaches me that a deep belly laugh now and then is better than a ton of prescriptions and barrels of medicinal preparations.

Yes, there is a lot of work and worry connected with a job such as mine. But, praise be, there is an equal lot of satisfaction and sunshine. That is, provided you are capable of extracting the sunshine and satisfaction. You cannot do it, however, if you take criticism and abuse to heart. And extracting it is easy, and worth trying. Perhaps you may think it is as difficult as the task set himself by a character in Dean Swift's works—the fellow who spent his life trying to extract sunshine from cucumbers.

Anyhow, take my advice and try it. Even trying will help a lot.



The Shuttle Line Railroad

THE Ferdinand (Ind.) railroad, with one locomotive and one coach and operating over 7.38 miles of track, is the world's shortest independently owned line. The train makes two round trips daily between Ferdinand and Huntingburg.

Since 1928 the road has paid no dividends and the directors have received no salary, but the employees have been paid regularly. Since 1934 the road has enjoyed a small profit.

The company's revenue is derived from a mail contract, passenger service, freight service to coal mines, furniture factories and the state highway department.

The personnel of the road consists of Victor Grewe, who acts as general manager, agent, conductor, brakeman, flagman, baggageman, and section foreman; Philip Schum, engineer and fireman, and three other men who constitute the section crew and roundhouse gang.

with
ed to
ng of
unless
to be
; in-
ence
now
pre-
ncial

orry
But,
atis-
pro-
the
not
and
it is
you
ask
ean
ent
rom
y it.



TVA As an Aid to Navigation

*The high cost of subsidized transportation
on the Tennessee river*

By FRANK M. PATTERSON

ONE of the widely heralded purposes of the Tennessee Valley Authority is to establish a yardstick for the cost of developing electric power so that the efficiency of privately owned utilities may be measured. The current is to be generated at high dams on the Tennessee river and its tributaries for the primary object, as stated by TVA, of flood control and the improvement of navigation on the main stream, with electricity as a by-product, in this way hoping to give constitutional sanction to the undertaking.

The validity of the TVA yardstick will depend on the fidelity with which the costs of the generating facilities are charged to that account, since interest on the investment and the amount of taxes are vitally affected thereby. In this connection, Dr. Arthur E. Morgan, chairman of the corporation, said in an article in *Forum*, of March, 1935, that if government operation is to serve as a fair comparison it must be conducted with no arbitrary advantages and subject to the same charges,

including taxes, that must be met by private industry. This is a frank statement of principles, to be expected of Dr. Morgan, who has an honorable background as an engineer; yet the accounts of TVA are not above suspicion.

The program for "navigation and flood control" on the Tennessee river, and "incidentally" for electric generation, contemplates an ultimate expenditure of about \$330,000,000, including Norris dam now nearing completion at a cost of \$35,000,000.

Consistent with its claim that the production of electricity will utilize only the excess water power at these dams, the TVA annual report for the fiscal year 1935 shows that of a "Net investment in programs" of \$48,500,000 to the end of that period, "Navigation and flood control" is charged with \$41,200,000, or 85 per cent of the total; "Electricity" with \$3,100,000, or 6.4 per cent; "Fertilizer and agricultural" with \$2,200,000; "National defense" with \$1,600,000, and "Studies

PUBLIC UTILITIES FORTNIGHTLY

and demonstrations" with \$400,000.

MANIFESTLY TVA bases its strategy on the Supreme Court decision concerning the right of the government to sell surplus power generated at Wilson dam, an integral part of the existing Muscle Shoals plant, for national defense and the making of fertilizers. The high court stated explicitly that its findings applied only to this location and gave no opinion as to power to be generated at the other dams, but the views of one of its members on the claim that the principal part of their cost is for the improvement of navigation is found in the dissenting opinion of Justice McReynolds, who said in part:

Nor do we find serious difficulty with the notion that the United States, by proper means and for legitimate ends, may dispose of water power honestly developed in connection with permissible improvement of navigable waters.

But the means employed must be reasonably appropriate in the circumstances. Under pretense of exercising granted power they may not in fact undertake something not entrusted to them

Here, then, we should consider the truth of the petitioners' charge that, while pretending to act within their powers to improve navigation, the United States, through corporate agencies, are really seeking to accomplish what they have no right to undertake, the business of developing, distributing, and selling electric power. If the record sustains this charge, we ought so to declare and decree accordingly.

Elsewhere in his opinion he said: "Commercial navigation (on the Tennessee river) is of moderate importance."

THE writer is an engineer and not a lawyer. As an engineer he knows that Justice McReynolds is on firm economic ground in his remarks and he feels that they should be sound in the viewpoint of the law. He does not know what the record before the

court may have contained regarding the justification for further expenditures for navigation and flood control on the Tennessee, but he does know that the records of the Chief of Engineers of the United States Army show that they are unwarranted for navigation and that the prevention of flood damage would not sanction an investment of more than a comparatively small part of the proposed costs.

The pitiful tale of navigation on the Tennessee is told in the annual reports of the Chief of Engineers and demonstrates that it is sorely in need of aid, but that it should be furnished by greatly increased traffic rather than by further capital investment. The data contained in Table I show the tonnage and classification of freight in the calendar year 1930 and the costs imposed by the river improvements in the fiscal year ended June 30, 1931, that time having been chosen as reflecting more nearly normal traffic conditions than the subsequent years of depression, as will be seen in the appended statement for the years 1930-34, inclusive, as reported by the Chief of Engineers. Traffic in the few years prior to this period was substantially the same as in 1930.

It will be noted that a great preponderance of the freight carried as shown in Table I is of low class. Sand and gravel constituted from 86 to 89 per cent of the total tonnage in the different years and practically all of it could have been transported if no river improvements had been made; timber furnished from 7 to 9 per cent of the tonnage and much of it could have been carried without river improvements.

If the improvement of inland rivers

TVA AS AN AID TO NAVIGATION

for navigation is to be justified by the results, the cost of moving traffic on them must be less than by rail and must be computed on the same basis, which includes interest on capital for the construction or purchase of land, roadway and bridges, equipment, and all other adjuncts of a complete transport system, as well as the cost of their maintenance and operation.

The total cost of moving river traffic is divided between the government and the boat lines, and the major part is borne by the Federal taxpayers, few of whom receive any benefit from the work. A study of the reports on all the improved portions of streams of the Mississippi river system reveals that only on the Monongahela is the cost of moving traffic less than the average ton-mile revenue of the Class I railways.

THAT portion of the cost of river traffic borne by the government may be obtained readily from the Chief of Engineers' reports, but no reliable

data are available for the operating costs of the boats except for the government-owned Federal barge lines, with operating divisions on the Lower Mississippi, the Upper Mississippi, and the Warrior rivers. For that system the operating costs are 0.4 cent per ton-mile, which should be increased by at least 60 per cent for comparison with rail, owing to the greater distances by river between common points. In view of this it seems fair to assume that the cost on the Tennessee for the operation of the boats would not be less than 0.60 cent per ton-mile and that probably it would be more.

In any discussion of freight transportation it is important that a full understanding be had of the technical terms involved, such as ton-miles, average haul, and traffic density. Ton-mileage is obtained by multiplying the tonnage of any particular shipment by the number of miles it is hauled and the sum of the products for all shipments gives the total ton-miles for the carrier under consideration. The

Table I
NAVIGATION ON THE TENNESSEE

Commodities	1930	1931	1932	1933	1934
Animal products	4,493	3,401	1,251	3,032	2,309
Vegetable products	27,191	4,258	6,221	5,731	2,499
Textiles	8,788	165	46	....	3
Timber products	200,832	94,975	60,566	84,855	104,222
Nonmetallic minerals:					
Sand and gravel.....	2,222,140	1,112,520	659,942	814,066	1,328,962
Cement	4,523	4,664	6,421	25,646	44,356
Marble	9,036	5,486	3,750	3,000	....
Coal	14,775	8,177	1,968	2,496	4,993
Miscellaneous	15,762	1,967	8,946	....	170
Ore, iron and steel	42,552	7,736	445	490	4,309
Machinery and vehicles	2,121	74	6	904	1,023
Chemicals and fertilizers	13,996	464	88	....	2,848
Merchandise	19,646	468	65	3	4
	2,585,855	1,244,355	749,715	940,223	1,495,698

PUBLIC UTILITIES FORTNIGHTLY

average haul is found by dividing the total ton-miles by the total tonnage and traffic density is the quotient of the ton-mileage divided by the length of the line operated, usually expressed as "tons carried one mile per mile of line."

IN comparing river and rail traffic it must be recognized that the boats have certain advantages over their competitors, but that they also have handicaps not inherent in rail operation. The advantages are the free use of channels furnished and maintained at great expense by the government; negligible taxes; freedom from rate restrictions by the Interstate Commerce Commission and often the use of freight houses either free or at costs much less than they could provide them.

On the other hand they are in poor position to compete for high-class freight owing to the slow speed of the boats and the cost of transhipment where commodities are to move partly by river and partly by rail. As a rule they must rely on the cities on the stream for their tonnage, while the railways, by their own lines or connections, have a much wider field from which to draw.

The population of the principal cities on the Tennessee and their distances from the mouth of the river are as follows:

City	Distance from mouth of river	Population 1930
Paducah, Ky.	At mouth	33,541
Florence, Ala.	257	23,383
Decatur, Ala.	304	15,593
Huntsville, Ala.	328	9,000
Chattanooga, Tenn.	364	119,798
Knoxville, Tenn.	648	108,502
Total		309,817

Note: Figures shown for Florence include population of Sheffield, Tuscumbia, and Muscle Shoals, all within a few miles radius.

CHATTANOOGA, Knoxville, and, in a lesser degree, Paducah are important manufacturing and distributing centers. Sheffield, near an iron-ore region, has smelters and steel mills, and the fertilizer plants at Muscle Shoals will produce considerable tonnage when they are in full operation, some of which undoubtedly will move by river. The only other towns of more than 5,000 population, Decatur and Huntsville, contribute little to the river traffic.

The country traversed is not highly productive agriculturally, but in the past has furnished large movements of timber, principally logs, railway ties, and piling. This traffic will have a tendency to decline, owing to the substitution of steel and concrete for timber in railway bridges and other structures and the chemical treatment of ties which insures a service life more than twice that of untreated material.

The comparative distances by rail and river between the principal traffic-producing cities are shown herewith:

Between	Distance, Miles	
	Rail	River
Knoxville Chattanooga	111	181
Knoxville Florence	277	388
Knoxville Paducah	400	645
Chattanooga Florence	166	207
Chattanooga Paducah	333	464

The time in transit between common points by river may be taken conservatively as about three times that by rail.

To June 30, 1931, a capital investment of \$14,000,000 had been made to provide a 6-foot channel depth for the 652 miles from the mouth of the river at Paducah to its head a few miles above Knoxville. With interest at 4 per cent this imposes an annual

TVA AS AN AID TO NAVIGATION



Economies of Inland Rivers Navigation

If the improvement of inland rivers for navigation is to be justified by the results, the cost of moving traffic on them must be less than by rail and must be computed on the same basis, which includes interest on capital for the construction or purchase of land, roadway and bridges, equipment, and all other adjuncts of a complete transport system, as well as the cost of their maintenance and operation."

cost of \$560,000, to which must be added \$542,850 for maintenance and operation of the improvements in that year, bringing the total to \$1,102,850. With the ton-mileage of 49,669,295 in 1930, this works out to a cost of 2.22 cents per ton-mile chargeable to the improvements, of which nearly half is accounted for by maintenance and operation. The economic loss is obvious for this compares with the average revenue in the same year of 1.06 cents per ton-mile for the Class I railways and of 1.23 cents for the Nashville, Chattanooga & St. Louis Railway, operating 1,203 miles of line in the same general region as the river.

From their revenues the railways must cover the costs of interest, maintenance, and operation of a complete transport system, while the river improvements provide only the equivalent of a roadway.

Taken by themselves the tonnage

data for the river may seem rather impressive, but they sink to insignificance when compared with those for the Class I railways as a whole and with the neighboring Nashville, Chattanooga & St. Louis Railway, as will be seen in the analysis in Table II based on statistics per mile of line operated.

In the comparison in Table II the capital investment for the Class I railways and for the river have been taken as a constant of the figures for 1930. The changes for the railways have been so slight as to have no effect on the averages, while the same is true of the river except for such as may have been made by TVA and these are not allocated between navigation and flood control. This exhibit gives the river all the best of it, for it credits the improvements with all the traffic, whereas a large part of it could have moved if they had not been made.

PUBLIC UTILITIES FORTNIGHTLY

Table II
RAILWAY AND RIVER STATISTICS

<i>Class I Railways</i>	<i>1930</i>	<i>1931</i>	<i>1932</i>	<i>1933</i>	<i>1934</i>
Investment per mile of line..	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000
Ton-miles per mile of line..	1,583,465	1,276,861	968,772	1,035,707	1,124,542
Ton-miles per dollar of investment ..	14.7	11.8	9.0	9.6	10.4
Average haul, miles ..	186	193	200	198	196
Ton-mile revenue, cents ..	1.063	1.051	1.046	0.999	0.978
<i>Nashville C. & St. L. Ry.</i>					
Investment per mile of line..	\$50,153	\$50,299	\$50,609	\$50,609	\$50,468
Ton-miles per mile of line..	1,040,255	882,539	615,256	706,789	704,913
Ton-miles per dollar of investment ..	20.7	17.6	12.2	13.9	13.9
Average haul, miles ..	170	187	190	197	189
Ton-mile revenue, cents ..	1.23	1.24	1.25	1.25	1.24
<i>Tennessee River</i>					
Investment per mile of line..	\$21,457	\$21,457	\$21,457	\$21,457	\$21,457
Ton-miles per mile of line..	76,180	42,521	25,060	50,090	66,183
Ton-miles per dollar of investment ..	3.6	2.0	1.2	2.4	3.1
Average haul, miles ..	19.2	22.3	21.8	34.7	28.9
Cost per ton-mile, cents :					
Borne by government.....	2.22	3.15	5.51	2.90	2.32
Borne by boats (estimated)	0.60	0.60	0.60	0.60	0.60
Total cost	2.82	3.75	6.11	3.50	2.92



The foregoing would seem to show the futility of economical navigation on the Tennessee. But the earnest seeker for information will find he "ain't seen nuthin' yet," for he will learn that in 1930 a new project was authorized by Congress for the canalization of the river to give a 9-foot channel depth throughout at an estimated cost of \$74,000,000, with additional operating and maintenance costs of \$1,280,000 annually. If that work were to be completed at the estimated cost, the investment per mile, including previous expenditures, would be \$135,000 a mile, or 25 per cent greater than the investment per mile of the Class I railways, and would impose annual charges of at least \$5,120,000 for interest and the maintenance and operation of the dams and other improvements. If the resulting traffic were

sufficient to bring the ton-mile cost chargeable to the improvements to the railway revenue of one cent a ton-mile in 1934, it would require a ton-mileage more than ten times as great as was carried on the river in 1934. Even then the total cost of carriage, including that of the boats, would be 50 per cent greater than the railway revenue. It seems self-evident that that goal cannot be reached.

RAILWAY freight charges are paid, as is proper, primarily by the shipper or consignee and finally by the ultimate consumer, while in 1930 nearly 80 per cent of the cost of carriage on the river was borne by Federal taxation, with largely increased percentages in the subsequent years.

With the adoption of the 1930 program, the question of economics en-

TVA AS AN AID TO NAVIGATION

ered in a big way, with economy a bad second but still important. If the first disregarded, as it was, economy demanded that the work be done with low dams and that plan was adopted. So it was started on the assumption that a deeper channel would somehow create tonnage where only scant sources existed. If Alice had owned a single-track railway in Wonderland, starving for lack of traffic, she probably would have double-tracked it and grown rich; such things might happen there.

In private industry the honest engineer is confronted with two main problems: economics and economy. On the one hand he has been described as "one who can make a dollar earn the most interest" and on the other as "one who can do with one dollar what any damn fool can do with two." The engineer in government employ must consider the added problem of political interference. This is not meant as a criticism of the Chief of Engineers, who must do

the bidding of his master, the Congress, no matter how much it may violate economics or hamper economical execution.

THE 1930 project went into the discard when TVA entered the valley and the ante has been boosted from \$74,000,000 to \$330,000,000 for the combined purpose of navigation and flood control. It is impossible to learn how much is to be allocated to each of these accounts. Since the foregoing demonstrates that the \$14,000,000 already expended for navigation has resulted in a total loss, it would seem fair to charge the entire amount to flood control. The prevention of loss by floods is a worthy undertaking, but such data as the writer has at hand indicates that the costs of such an investment would exceed the annual damage by overflow on the Tennessee river or on the Ohio below its mouth caused by its waters.

A Thought before Saying "Nobody's Going to Tell Me How to Run My Business"

OF eight inventions which Dr. C. M. A. Stine calls "milestones of railroad progress," none was invented by a man whose business was railroads. Morse, who invented telegraphy, was an artist. Pullman was a Chicago street contractor and the railroads were reluctant to adopt his sleeping car. Eli H. Janney, who patented the first automatic car coupler, was a clerk in a dry-goods store. The automatic block-signal system was originated by a retired textile manufacturer, Thomas S. Hall. Westinghouse was a 23-year-old carpenter-machinist when he invented the air brake. A physician invented the vestibule buffer, eliminating open platforms. The refrigerator car was largely developed by packers. And the first electric locomotive was designed by Moses G. Farmer, a schoolteacher.

"Boss" Kettering, head of General Motors' research department and one of America's greatest inventors today, says, in fact, that "no man ever invents anything in the field in which he is trained"—he knows too much about the obstacles. Only in a field where his ignorance leads him to believe anything is possible is anything possible, insists Kettering who, incidentally, helped develop the fever machine now used by physicians to cure pneumonia, paresis, and St. Vitus' dance. So mind your own business if you wish—but possibly if you do, you won't amount to much in it or in anything else.

—*Ladies' Home Journal*



Financial News and Comment

By OWEN ELY

I.B.A. President Stresses Need of Close Ties between Banking and Industry

PRESIDENT Edward B. Hall of the Investment Bankers Association of America, in a recent address before the association, took issue with Commissioner Douglas of the SEC. In a similar address a month earlier, Mr. Douglas had criticized long-continuing relationships between investment bankers and corporations through directorates, or otherwise, and had emphasized the advantages of competitive bidding for new issues. He also held that bankers could exercise a sound influence on protective clauses in charters and indentures, prevent over-complicated capital structures, and insure investors of the opportunity to participate in management; and Mr. Hall questioned whether the latter results could be effectively obtained without some continuing relationship between the issuing company and its bankers.

If bankers are expected to render this service, asked Mr. Hall, why should continuity of banking relationships be "of unestablished value to anyone except the bankers"? Mr. Hall quoted the famous MacMillan report prepared for the British government in 1931, which concluded that relations between British financiers and British industry were not sufficiently close.

Regarding Mr. Douglas' suggestion that it might be desirable to segregate underwriting and distributing functions, Mr. Hall found it difficult to visualize the effects on existing facilities for financing

industry and marketing securities. Segregation would tend to further concentrate investment banking in the larger communities and larger firms. A local banking house originating an issue which it expects to sell to its own customers would be apt to have a keener sense of responsibility for protecting the investor than a large metropolitan distributing house. The MacMillan commission had been impressed with the advantages of the American system, where reputable banking houses assumed responsibility for the character of their offering.

Regarding competitive bidding, Mr. Hall mentioned that the cities of New York and Chicago, which usually sell their bonds at competitive bidding, during the worst of the depression abandoned that method as hopeless and took their problems directly to leading bankers.

Mr. Hall also cited a study on "The Fallacy of Competitive Bidding for Public Utility Securities," published recently in the PUBLIC UTILITIES FORTNIGHTLY, to indicate that some issues sold in the past year or two on competitive bids showed "that in a strong market they brought fancy prices and were handled on unusually narrow margins of profit, but did not stand up as well in the market as did similar issues offered during the same period which were handled by regular bankers for the various companies in the more usual way."

The *Wall Street Journal*, commenting editorially on Mr. Douglas' proposals stated:

It is hardly too much to say that the "banker" (like the public utility corpora-

FINANCIAL NEWS AND COMMENT

tion, the railroad, and "big business" generally) is here held up to public reprobation as a natural "enemy of the people." So long as that view obtains, reason will have a hard job to have its way in influencing legislation or regulation in corporate financing. The only possible justification for competitive bidding in the case of corporate issues in general would be that it was a lesser evil when compared with the kind of "banker-control" visualized by the politician and the demagogue. Its defects as a theoretical method are obvious. And the sad thing is that in the long run it will be the "investor" who will suffer by reason of all attempts to protect him which are based on the above "public enemy" hypothesis.

Government Takes More in Taxes than Common Stockholders Get in Dividends

ANNUAL reports of leading utility companies have recently stressed the alarming growth in taxes. Utilities are still a "shining target" for all kinds of special levies, such as Governor Lehman's recently proposed 2 per cent tax on gross revenues of utility companies (not including railroads) in New York state. American Water Works, Western Union, and Brooklyn Union Gas have called attention to the amount of their total tax payments in relation to common stock; and President Gifford of American Telephone and Telegraph Company, in his recent address to 250 stockholders, called attention to the fact that taxes now amount to \$9.00 per telephone compared with only \$5.60 in 1929, and that telephone rates may have to follow the rising spiral of prices, wages, and taxes.

The Federal government, in its various investigations and activities, has doubtless left the impression with a large number of people that utilities as a class are being "milked" by their common stockholders. But it should be evident that as a result of the rise in regular taxes and the imposition of many special levies, utilities are now being "milked," not by stockholders, but by the government and its local subdivisions. It is interesting to note in the following table, which includes the greater part of the utility in-

dustry, that the government is getting far more from the utilities, as a class, than are the common stockholders. (Figures are for the calendar year 1936 and are approximate.)

	<i>Dollars Per Share</i>	<i>Common Stock</i>	<i>Taxes</i>	<i>Dividends</i>
American Gas & Electric	\$2.19		\$1.40	
American Power & Light	3.89		—	
American Telephone & Telegraph	6.21		9.00	
American Water Works & Electric	2.75		.40	
Associated Gas & Electric	2.05		—	
Boston Edison	9.75		8.00	
Brooklyn - Manhattan Transit	11.20		—	
Columbia Gas & Electric	.89		.40	
Commonwealth Edison..	9.50		5.00	
Commonwealth & Southern .....	.48		—	
Consolidated Edison	3.93		1.75	
Consolidated Gas of Baltimore	3.68		3.60	
Detroit Edison	5.52		6.00	
Engineers Public Service	2.99		—	
Interborough Rapid Transit	11.20		—	
Long Island Lighting .....	.73		—	
National Power & Light	1.58		.60	
New England Power Asso	8.47		—	
Niagara Hudson Power	1.29		.40	
North American	1.98		1.50	
Northern States Power..	15.90		—	
Pacific Gas & Electric ..	1.92		1.50	
Pacific Lighting	4.48		2.70	
Peoples Gas Lt. & Coke	5.57		—	
Public Service of N. J.	3.65		2.60	
Public Service of No. Illinois	6.00		2.50	
Southern California Edison	1.95		1.50	
United Gas Improvement ..	.59		1.00	
United Light & Power ..	2.77		—	
Western Union	3.96		2.00	

Standard Gas & Electric Reorganization

A COMMUNICATION sent to security-holders of Standard Gas & Electric Company (by the protective committees for the notes, debentures, and prior preferred stocks) indicates that an amended plan of reorganization may be filed in court within sixty days. As previously indicated, holders of notes and debentures are to have the option of re-

PUBLIC UTILITIES FORTNIGHTLY

taining present holdings, or of exchanging them partially for new funded obligations and partially for stocks of certain operating subsidiaries. Holders of prior preferred stocks are to be given voting rights and representation on the board, but the method for taking care of dividend arrears has not been definitely indicated.

The company has offered to settle a contemplated \$100,000,000 suit for \$1,000,000. Suit had been threatened by certain minority stockholders on the grounds that corporation assets had been wasted. The proposed compromise is expected to expedite the pending plan of reorganization.

Consolidated net income of the system for the twelve months ended February 28th was \$3,869,945, as compared with \$2,620,470 in the preceding twelve months.

New York Traction Continue to Decline

NEW York traction bonds are continuing to decline, as indicated in the following comparison:

	Recent price about	1937 High
Interborough 5s	77	97
Interborough 6s	34	56
Manhattan 4s	43	58
B.-M. T. 4½s	93	104
B.-M. T. stock	36	53

Increasing labor costs, which may be heavier due to the Wagner Act decision, are considered a major factor in the decline, although thus far increased costs of coal and labor are understood not to be serious. Disappointment over probable failure of the unification plans, and continued difficulties in reconciling conflicting Interborough and Manhattan interests, were doubtless also responsible. The fact that the sinking fund on the Interborough 5s received large offerings from undisclosed sources also proved disappointing to dealers, who had apparently accumulated bonds in anticipation of sale to the sinking fund.

For the present there still appears to

be some margin of safety in Interborough earnings for the refunding bonds, although if costs continue to rise, some adjustment of the heavy sinking fund might prove necessary. As the company is already in receivership, this would probably not be a difficult step.

Brooklyn-Manhattan Transit made a good report for the nine months ended March 31st, earnings being equivalent to \$3.29 per share on the common stock compared with \$3.06 in the same preceding period. This was despite the poor report of the trolley subsidiary, Brooklyn & Queens Transit (included in the parent company's report), net income for nine months being only a little over half that of the previous period, while March net was slightly more than a third of last year's figure.

It would appear that recent low prices for New York traction securities have about discounted current unfavorable developments, and some rally from present levels appears likely, provided general market conditions are not too adverse.

Electric Sales Campaigns

BECAUSE of smaller profit margins due to lower rates and increasing expenses and taxes, the electric power industry is making a determined effort to stimulate sales. Recent issues of the *Edison Electric Institute Bulletin* and of the *Electrical World* have devoted special attention to the problem of stimulating load.

Pierre L. Miles of the Nash-Kelvinator Corporation estimates total sales of electric ranges this year at 500,000, as compared with a total of 1,735,450 in use at the beginning of the year. With this increase, one in every ten wired homes would be equipped. February sales of electrical refrigerators totaled 245,614 units, a gain of about 42 per cent over last year. These figures for "heavy" appliances indicate a continued increase in household sales of electricity.

The gross output of electricity continues to run well over last year, eighteen

FINANCIAL NEWS AND COMMENT

major systems showing gains for the week ending April 10th ranging from 6 to 23 per cent (U. S. average, 12.6 per cent).

& Southern (February 15th) in its 61-page statistical analysis of the 1936 annual report of TVA. Both make interesting reading.

The TVA Issue—Propaganda vs. Statistics

Two separate news items indicate the wide diversity of statistical data offered by the TVA development. President McCarter at the stockholders' meeting of Public Service Corporation of New Jersey criticized a statement made at a meeting sponsored by the "League for Industrial Democracy" that, under TVA rates, consumers served by the company would (in 1934) have had their bills reduced one-half or more. He pointed out that about one-sixth of the company's receipts are expended for taxes, while TVA is exempt, and stated that Public Service rates compare favorably with those of similar utilities.

At about the same date President Kellogg of the Edison Electric Institute told the convention of the West Virginia Chamber of Commerce that steam power plants in the TVA area could generate energy at about 41 per cent of the actual cost (to taxpayers and consumers) of hydro power. The large premium, he stated, is based on the difference in cost between the type of dams now being constructed for both navigation control and power production, and those recommended by War Department engineers as adequate for navigation alone. He estimated that the present type of power dams will cost some \$231,000,000 over the cost of navigation dams, although TVA has so far allocated none of this to electricity. He estimated the *true* cost of TVA firm power at 9.5 mills per kilowatt hour at the bus bar, while modern steam plants could generate energy in the same area at 3.9 mills.

TVA has recently issued a beautifully printed 86-page booklet describing in illustrated story form its history and accomplishments. The other side of the issue was presented by Commonwealth

Security Offerings Continue Small

WITH the security markets still highly irregular, due to conflicting reports on business prospects and Washington policies, new financing remains in "low gear." In the fortnight ended April 24th, only one important utility issue appeared, the \$4,500,000 Marion-Reserve Power Company first 4½s of 1952, offered at 98.

According to the Dow Jones calendar of SEC registrations, forthcoming issues (timing of which must be considered indefinite until bond market sentiment improves) are as follows: \$7,250,000 Southwestern Light & Power first "A" 4s of 1967; \$45,000,000 Southern Bell Telephone debenture 3½s; \$4,500,000 Commonwealth Water Company first mortgage bonds of 1967; \$10,000,000 Associated Gas & Electric debenture 5s of 1952; \$400,000 National Gas & Electric 5s of 1953; \$13,600,000 Hackensack Water Company first mortgage bonds of 1967; \$1,000,000 Greenwich Gas Company first 4s of 1956; \$1,022,000 San Jose Water Works first 3½s of 1961. Stock issues include 10,000 shares Commonwealth Water Company preferred; 35,000 shares National Gas & Electric common stock; and 61,500 shares Hackensack Water Company.

Some registrations, such as the \$14,200,000 Iowa Public Service first mortgage bonds and the \$31,000,000 Detroit City Gas first 4s, have been withdrawn from registration.

Public Service Corporation of New Jersey

PRESIDENT McCarter of the Public Service Corporation of New Jersey

PUBLIC UTILITIES FORTNIGHTLY

told stockholders at the recent annual meeting that he visualized moderate improvement in earnings, adding that "unless we are up against a wave of radicalism which would swamp all of us, there is no danger of public ownership or competition from Federal sources."

Mr. McCarter reported that, under pending plans for simplifying the company's corporate structure, Public Service Electric & Gas Company would eventually operate all gas and electric properties and Public Service Coördinated Transport Company all traction properties.

He read to stockholders a list of the earnings of a selective group of stocks and pointed out that Public Service's earnings over the last twenty-three years, averaging 6.7 per cent, compared favorably with earnings of other stocks on the list.

When questioned regarding the progress made in acquiring properties of the Jersey Central Power & Light Company, Mr. McCarter replied that, while hopeful of obtaining the properties, which are contiguous to those of Public Service, he was unwilling to pay "any unjustifiable price." The company's bid for 712,000 shares of Jersey Central Power & Light common stock has already been raised from \$5 to \$8 a share.

Referring to an inquiry as to the possibility of using natural gas in New Jersey, Mr. McCarter indicated that he did not particularly favor this because it would "force a change in equipment and habits of the people."

Corporate Notes

SEVERAL presidents of leading utility companies, at recent annual meetings of stockholders, have tried to inject a note of cheer regarding the prospects for the industry as a whole. President Porter of American Water Works & Electric told shareholders that the industry "occupies a position in our economic structure second to none in importance."

Negotiations are under way to exchange minority stock of New York

Steam Company for Consolidated Edison common, to clear the way for a consolidation and refunding program. In about a week's time New York Steam (on the New York Curb) advanced from 17½ to 32, due possibly to purchases by the Edison company.

Secretary Ickes will hold hearings on protests over Boulder dam power. The chief complainant is the Metropolitan Water District of Southern California which claims that due to completion of the dam two years ahead of schedule, it is unable to consume the power allotted to it (36 per cent of the firm output) its own \$220,000,000 aqueduct to Los Angeles, for which power is to be used in pumping water, is not yet completed. Southern California Edison Company and Los Angeles Gas & Electric Company are also interested in changing their contracts.

ASSOCIATED Gas & Electric interest are said to have the largest stake in Utilities Power & Light Corporation (now under 77B proceedings) after Atlas Corporation. Atlas' interest, mainly through its one-third holdings in the debentures, is exercised through two investment companies which also are under 77B and whose assets are in the hands of trustees, while the Associated Gas holdings are free. Harry Reid, an executive of Associated Gas, has asked for proxies for the "general protective committee" which he heads. Associated interests have indicated that they are not in conflict with the Atlas group and are not attempting to obtain control of the \$300,000,000 system.

Federal Water Service Corporation may extend its activity into new utility fields because of the tendency toward public ownership of waterworks, according to President Chenery. The company has formed a subsidiary to explore possible new natural gas fields.

Brooklyn Union Gas Company has reduced its dividend rate from \$3 to \$1.60. In 1936 the company earned \$3.02 compared with \$3.63 in 1935 and \$4.25 in 1934. Lower earnings are ascribed to high taxes, fuel costs, and lower rates.

FINANCIAL NEWS AND COMMENT

How 1936 Bond Issues Have Fared Marketwise

It may be of interest to review the present market status of the more important utility bond offerings issued during the year 1936. The list has been arranged

by months, since the timing of the offerings may be a considerable factor in the comparison of current prices with the initial prices.

The accompanying table indicates the current approximate market price compared with the original offering price.

Month of Offering	Company and Issue	Offering Price	Current Price
January	\$27,000,000 West Penn Power Co. 1st 3½s of 1966	103	104
February	\$20,300,000 Connecticut River Power Co. 1st 3½s of 1961	104½	103
	\$55,000,000 New York Edison Co. 1st & ref. 3½s of 1965	100	99
March	\$16,000,000 Public Service of Oklahoma 1st 4s of 1966	101½	102
	\$55,830,000 Consumers Power Co. 1st 3½s of 1970	103½	100½
	\$75,000,000 Eastern Gas & Fuel Assoc. 1st & coll. 4s of 1956	96½	87½
April	\$90,000,000 Pacific Gas & Electric 1st & ref. 3½s of 1961	102½	100
	\$65,000,000 Brooklyn-Manhattan Transit coll. 4½s of 1966	100	92
	\$54,000,000 Brooklyn-Manhattan Transit coll. 3-3½s of 1937-51	98-102½	94½
	\$13,500,000 California Oregon Power 1st 4s of 1966	97½	92½
	\$35,000,000 Consolidated Edison deb. 3½s of 1946	101	104
	\$35,000,000 Consolidated Edison deb. 3½s of 1956	99½	102½
	\$30,000,000 Pacific Gas & Electric 1st & ref. 3½s of 1961	102½	100
	\$30,000,000 Pacific Telephone & Telegraph ref. 3½s of 1966	101½	100½
	\$25,000,000 Saguenay Power 1st 4s of 1966	100	101
May	\$10,500,000 Wisconsin Gas & Electric 1st 3½s of 1966	101½	99½
	\$55,000,000 Brooklyn Edison Consol. 3½s of 1966	101½	100
	\$11,000,000 Minneapolis Gas Light Co. 1st 4s of 1950	102½	102½
June	\$22,000,000 Peoples Gas Lt. & Coke 1st & ref. 4s of 1961	97½	93
	\$10,000,000 California Water Service 1st 4s of 1961	102½	99
	\$32,493,000 Niagara Falls Power 1st & ref. 3½s of 1966	104	101½
	\$20,000,000 Oklahoma Natural Gas 1st 4½s of 1951	98½	97½
	\$10,000,000 Oklahoma Natural Gas conv. deb. 5s of 1946	100	100½
	\$15,000,000 Potomac Electric Power 1st 3½s of 1966	104	102
	\$11,000,000 Western Massachusetts Cos. 3½% notes due 1946	101½	102
	\$32,000,000 Wisconsin Power & Light 1st 4s of 1966	99½	92½
	\$25,000,000 Wisconsin Public Service 1st 4s of 1961	99½	99½
July	\$10,000,000 Arkansas La. Gas 1st 4s of 1951	98	100
	\$13,827,000 Indianapolis Water 1st 3½s of 1966	100	100
	\$34,000,000 Narragansett Electric 1st 3½s of 1966	102.83	101
	\$30,000,000 New York Edison 1st & ref. 3½s of 1966	102	98½
	\$10,500,000 Wisconsin Michigan Power 1st 3½s of 1961	103	100
August	\$35,000,000 Cincinnati Gas & Electric 1st 3½s of 1966	102	99
September	\$20,000,000 Detroit Edison gen. & ref. 3½s of 1966	105	102
	\$17,300,000 Gulf States Utilities 1st & ref. 4s of 1966	103	100½
	\$28,000,000 Louisville Gas & Electric 1st & ref. 3½s of 1966	102½	100
October	\$150,000,000 American Telephone and Telegraph deb. 3½s of 1961	101	97½
	\$14,000,000 Central Maine Power 1st & gen. 3½s of 1966	101½	93½
	\$13,906,900 New York State Elec. & Gas 1st 4s of 1965	102	95½
	\$35,000,000 Pacific Gas & Electric 1st & ref. 3½s of 1966	102½	96
November	\$48,000,000 Montana Power 1st & ref. 3½s of 1966	101	93½
	\$10,067,000 New England Power 1st 3½s of 1961	103½	99
	\$15,000,000 Southern Natural Gas 1st 4½s of 1951	100	97½
	\$160,000,000 American Telephone and Telegraph 3½s of 1966	102	97½
	\$16,000,000 Connecticut Light & Power 1st & ref. 3½s of 1966	104	101
	\$23,000,000 Cons. Gas El. Lt. & Power Co. of Balt. 1st ref. 3½s of 1971	104	101
	\$12,000,000 Consumers Power 1st 3½s of 1966	102½	97½
	\$10,000,000 Florida Power 1st 4s of 1966	100	88
	\$27,500,000 Houston Lighting & Power 1st 3½s of 1966	103	101
	\$26,834,000 Ohio Edison 1st 3½s of 1972	103	98
	\$35,000,000 Oklahoma Gas & Electric 1st 3½s of 1966	102½	97½
December	\$25,000,000 Pacific Tel. & Tel. ref. 3½s of 1966	105	100

What Others Think

The Mystery of the Elusive Federal Power Policy

EARLY in March, while oratorical cannons were roaring to the Left of him and to the Right of him over the Supreme Court reorganization proposal, President Roosevelt found time to remind Congress that the \$47,000,000 Bonneville dam on the Columbia river is almost ready for duty in his "war against want." The avowed major purpose of this project is the improvement of navigation but, "incidentally," hydro power will be generated for the operation of the dams, locks, fishways, etc., and surplus power will be available to the public.

It was concerning this "surplus power" that the President wanted Congress to act and, so that there would be no mistake about it, he sent along a report of his National Power Policy Committee which stated in considerable detail just how he wanted Congress to act. Speaking of this report, President Roosevelt in a brief letter of transmittal to the Speaker of the House and the Vice-President said, "I approve the recommendations and believe that they merit careful consideration."

Thus was the word handed down from Mt. Sinai to the more faithful New Dealers in the 75th Congress, but not a few of them were puzzled because of what had previously been said on this subject in the last session of Congress and still more puzzled at what was subsequently said at the hearings of the House Rivers and Harbors Committee on the so-called Smith bill (H. R. 4948), which was supposed to contain, verse and chapter, all of the recommendations of the National Power Policy Committee, so definitely endorsed by the President.

A recent issue of a confidential Washington weekly letter service devoted to matters of utility interest explained the problem puzzling the Congressmen:

MAY 13, 1937

Nine months ago, the President specifically endorsed a bill (the so-called McNary bill), joint product of the Oregon and Washington Senators, providing for operation of Bonneville by the Army Engineers with rate-fixing authority over all Federal power projects resting in the Federal Power Commission. That bill, he said then, "establishes a sound, constructive, and workable program for the disposal of the power that is now or may hereafter be developed in connection with Federal projects."

Three weeks ago, the President specifically endorsed a bill (now known as the Smith bill, H. R. 4948), product of a group selected by the President from his original Power Policy Committee, providing for operation and rate fixing by a single Administrator to be named by the Secretary of the Interior, Harold L. Ickes, who is also chairman of both policy committees. The Administrator, however, would eventually be replaced by an "Authority." Rate making for TVA and other projects was apparently to be handled by an "Authority" in charge of the respective developments.

Now the President is understood to have agreed that, after all, perhaps the Army Engineers should operate Bonneville. Whether he will also revert to his position of last year and favor the FPC as the rate-making agency is problematical. It is equally uncertain whether he will agree to the immediate creation of an "Authority" in the Pacific Northwest to handle Bonneville and the prospective Grand Coulee power project.

Obviously, there is no national power policy applicable to the administration of Federal projects. There is the TVA, a law unto itself; the Army Engineers, so far, are in charge of Bonneville and Fort Peck and Passamaquoddy if it is revived; the Bureau of Reclamation (subordinate to Mr. Ickes) controlling Boulder dam, Grand Coulee, Casper-Alcova, Central Valley, and numerous comparatively small reclamation power projects; the PWA (also dominated by Mr. Ickes) hovering over such large non-Federal power developments as those in Nebraska, Texas, and South Carolina.

BEFORE going into the reason for the mid-March shift of sentiment in favor of the Army (based principally

WHAT OTHERS THINK

on the testimony of General Edward M. Markham, Chief of Army Engineers, in hearings on the Smith bill), it might be some aid to better understanding of the matter to review briefly the background of the project in question.

Bonneville dam is really two dams branching shoreward from a mid-river island on the Columbia, known as Bradford Island, 31 miles upstream from Portland, Or. It has the highest single lift lock in the world (66 feet) and by reason of its proximity to tidewater will, upon completion of channel improvement, allow ocean vessels to travel up the Columbia as far as The Dalles (50 miles). If, as, and when, nine more dams are built farther up the Columbia, the river will become navigable for over 600 miles.

The interesting fishway feature of the Bonneville project is described by the weekly magazine *Time* as follows:

Navigation, however, is not the chief problem involved in the administration of the new dam, nor are the fish problems. Two salmon ladders were built—cascades with steps one foot high and 16 feet wide. Six salmon "elevators" or fish locks were also provided. These are chambers 20 by 30 feet into which the salmon may swim; then a gate is closed and a grating, similar to an elevator, rises until the fish can swim out into the reservoir above the dam. These devices have not yet been tested, for salmon are still able to swim between the piers of the unfinished dam. Unfortunately salmon swim blindly into places where the current is strongest, and if the 50,000 salmon a day which pass upstream at spawning time do not like the new conveniences provided for them, it will be just too bad for the \$10,000,000-a-year Columbia river salmon industry....

Other problems are to prevent fingerling salmon from being mangled by the power turbines as they swim down to the sea (it is hoped they will not be hurt because the turbine blades will turn only 75 revolutions per minute) and to keep them from swimming into irrigation ditches upstream, to die quietly in orchards and grain fields.

But, *Time* went on to state, it appeared from the beginning that the "Power tail is to wag the dam dog at Bonneville." Not to ship experts or fish experts did President Roosevelt go for

advice on Bonneville's "incidental" problem. The President's National Power Policy Committee, as aforesaid, was created to work out the matter. The recommendations of this committee (incorporated in the Smith bill) were in brief as follows:

The bill provides for a Columbia River Administrator, but it is specifically stated that this position is intended to be provisional pending the establishment of permanent administration for the Bonneville and other Columbia river basin projects. That this contemplated permanent administration is but the forerunner of others may be taken for granted.

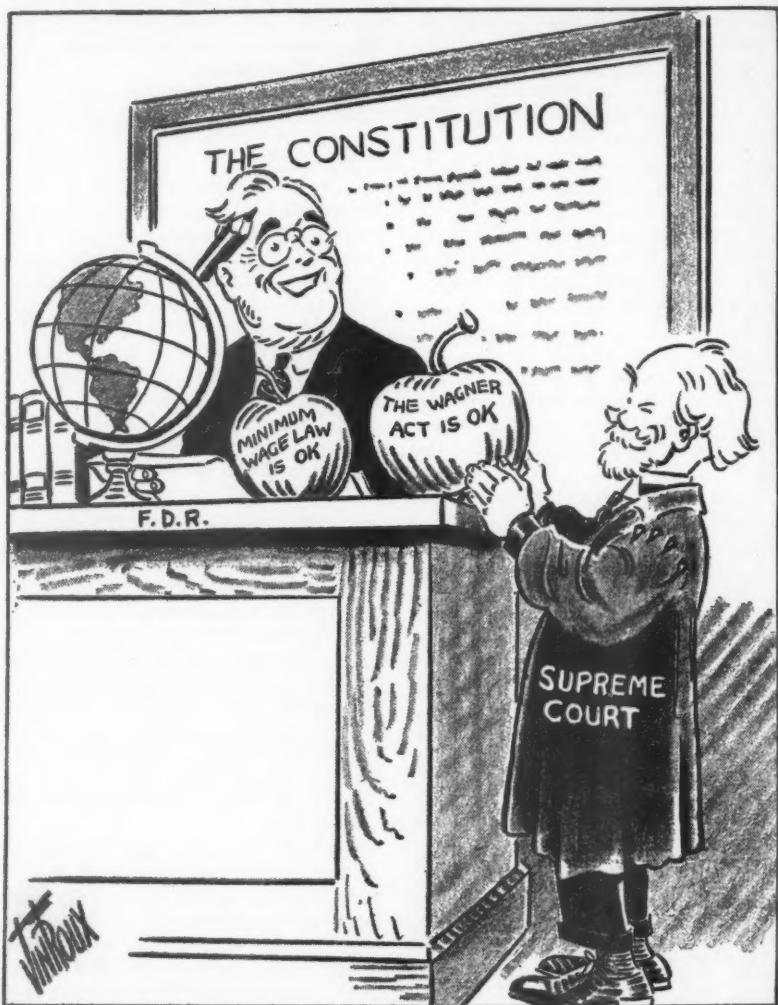
The new bill adopts the usual New Deal formula of stating that the primary purposes of the project are to promote navigation and control floods. But the same section provides that the Administrator is to encourage the widest possible use of available electric energy, provide reasonable outlets therefor, and prevent monopolization of the power by limited groups or localities.

To this end the Administrator may construct and operate transmission lines, substations, etc., and is authorized to build, buy, or condemn such property (including existing transmission facilities) as he may deem necessary to carry Bonneville power "to existing or potential markets."

Half of the entire capacity of Bonneville is to be reserved until 1939 exclusively for public agencies and non-profit cooperatives, but in the meantime they also have first call. Any contract which may be made with a private company desiring power for resale (that is, an existing public utility) may be canceled by the Administrator on five years' notice if a public agency wants the power.

The proposed Administrator would be required to act in consultation with an advisory board composed of three representatives designated, respectively, by the Secretaries of War and Interior and the FPC. It is not stipulated, however, that he shall in any way be subject to their dictation.

PUBLIC UTILITIES FORTNIGHTLY



The Charleston Gazette

ANOTHER APPLE FOR THE TEACHER

COMPARING the bill with the Bone-Schwellenbach - McNary - Steiwer bill introduced in 1936 (also with the ostensible approval of the White House), the new bill differs chiefly from the old bill in giving the proposed Administrator authority to fix rates instead of the Federal Power Commission.

Another difference between the two bills is that authority that would be given in the Smith bill to the Administrator to control rates for the resale of power to the ultimate consumer. This would apply to all contracts for wholesale power (TVA now exercises similar authority).

The rate formula proposed in the

WHAT OTHERS THINK

1936 bill has also been revived in the Hill measure. The new bill directs that the Administrator fix rates with a view to encouraging the widest possible use of electric energy, having regard for amortization of the capital investment. The Administrator, under the terms of the bill, may allocate to the cost of electric facilities a share of the cost of the dam and other dual-purpose construction. Uniform or zone rates may be established, as the Administrator elects.

Just what practical advantage to public ownership the so-called "dog-in-the-manger" clause in the Smith bills (reserving surplus power for exclusive use of publicly owned plants) will amount to remains to be seen, in view of the existing generous power supply in the Bonneville area. As *Time* stated on this point:

One surplus power problem the report did not consider. Washington and Oregon already have relatively cheap power from private plants (their residential electric rates average 2.7 cents and 3 cents a kilowatt hour) and they lead the U. S. in residential use of electricity. Next year with only two of its ten generating units functioning, Bonneville will be able to produce about half as much power as the whole Bonneville transmission area is already consuming. When all Bonneville's production comes in, the area will have to consume three times as much power as at present if some of the government or private generating plants are not to be largely idle. Unless new industries are attracted, Bonneville's cheap-power-on-tidewater will be an oversurplus.

At the House committee hearings on the Smith bill, General Markham sprang the surprise by recommending an amendment to the bill which would place the operation of Bonneville dam and power plant under the War Department, the power generated to be turned over to the proposed Administrator at the switchboard. General Markham advised the committee that this amendment had been "discussed with and approved by the President." The general pointed out that under the bill as it now stands, the responsibility for operation of the project would be divided between the proposed Administrator and the Army En-

gineers, who would have in charge only the operation of the locks. In further support of the amendment he stated that if the project had been built primarily for navigation purposes it should be operated by the War Department.

Even if there were unanimity on any one of or a compromise between these somewhat conflicting views, the matter of Federal power policy would be far from solved. One of the major difficulties is described by the *Engineering News-Record*, which stated editorially:

On the matter of power policy the committee's chief recommendations are that preference be given to the power requirements of public agencies and that the terms under which power is sold to private agencies include a cancellation clause for use in case the power is needed for public agencies. But these are academic questions until purchasers of the power can be found; and purchasers cannot be definitely assured until price and sales policies are set up.

On the important question of whether the power will be used to stimulate industrial development of the Portland area by making transmission costs a factor in the sales price, or whether it will be used to stimulate decentralization of industrial development by selling it at uniform rates throughout a wide area, the committee makes no definite recommendation. Similarly, the committee is indefinite on the matter of allocation of costs of the dam between power, navigation, and flood control. To what, for example, will the \$6,000,000 spent for fishways be charged?

If the orderly development of the lower Columbia river valley is to go ahead as it should, a definite decision on the manner in which Bonneville power is to be sold and at what price ought to be made quickly.

Evidently the problem facing our Congressmen is to find out not only what it is that the President really wants, but also whether that will be legislation even to cover the situation decently.

—F. X. W.

POWER. Bonneville Prospectus. *Time*. March 8, 1937.

NOTES from Hearing on Bonneville-Power Policy Bill (H.R. 4948) before the House Rivers and Harbors Committee, March 9, 1937.

No POLICY YET. Editorial. *Engineering News-Record*. March 4, 1937.

PUBLIC UTILITIES FORTNIGHTLY

Two State Reports on Regulation and Operations

Two years ago the so-called Sherrill Commission was created by Governor Davey of Ohio for the purpose of surveying the state government in all its phases and report thereon with recommendations for improvement. The Sherrill Commission got down to its job promptly and made an intelligent segregation of the work, parcelling out different aspects of the subject to different experts. A number of these Sherrill reports have been completed, although so far the Davey administration in Ohio appears to have made little practical use of them.

Toughest assignment of all perhaps was a survey of the Ohio Public Utilities Commission, but it was given into hands well qualified to take care of it—Howell Wright, Cleveland attorney and former head of the Cleveland municipal electric plant, who will be recalled by many FORTNIGHTLY readers for his signed contributions to this publication. Mr. Wright has finally completed his report and there is little doubt but that he has made a thorough job of it. Whether it will suffer the same fate as other Sherrill reports is in the lap of the gods.

Two points stand out very sharply in Mr. Wright's sharp criticism of the Ohio commission. First of all, he recommends reform, not for economy's sake (the usual reason given), but for the sake of effective utility regulation. He concedes his suggestions will cost more not less, although he observes that in the long run "money invested in real regulation will pay handsome dividends." The second unique point is that Brother Wright, himself of the legal fraternity, is in favor of fewer members of the bar on the commission. He suggests (for a 3-man commission) a combination of a lawyer, an engineer, and an accountant. This need not be a hard or fast rule; that is, to the extent of barring a qualified member of any other profession (a professor in utility economics, for example) where the occasion arises.

In any event, Mr. Wright deplores the practice of filling up the commission with lawyers or, worse yet, using it as a political dumping ground. "Some governors," he says, "seem to have the idea that the state commission should serve them as a political agency because they appoint the members." He wants membership on the commission to be a profession not a political job. He wants all staff and subordinate positions under membership to be subject to civil service. He thinks that "career men" could be developed by the increase in members' term from six to eight years.

On the subject of commission attitude generally, Mr. Wright goes back to the position taken by Franklin D. Roosevelt, when as governor of New York, he quarreled with the then chairman of the New York Public Service Commission over whether that body should act in a *quasi* judicial capacity or as an active and alert regulatory policeman. Mr. Wright is inclined to blame Ohio's antiquated "code" rather than the past members of the Ohio commission for the "bench complex" which, he says, has developed. He complains that the commission has become in fact a *quasi* judicial body instead of an administrative agency. It waits for disputes to arise and then acts as an umpire applying the rules of the code.

A code requirement that the commission set a utility valuation on a basis of "reproduction cost new less depreciation" also drew fire in the Sherrill report. Cumbersome and antiquated procedure was condemned. Mr. Sherrill suggested a complete revision, which includes the taxing of utilities for the cost of their regulation, and the appointment of a chief administrative officer whose principal duty would be to speed up rate cases.

The delay which has characterized much regulatory litigation was the main target for Mr. Wright's criticism. He made a rather broad statement to the

WHAT OTHERS THINK



The Dallas Morning News

FISH BAIT

effect that because of such delay the commission has lost the confidence of the public and warns that further delay in recognizing the need for greater cooperation with the public is hastening the advent of public ownership of utilities.

In this day of increasing Federal regulation, he added, the failure of the state

to improve the effectiveness of its regulation strengthens the Federal power. National control is now in the ascendancy; state control is on the wane. It is up to the state to decide and decide quickly whether it wants to pay the price and make the effort to install real regulation, or forfeit in large part this valuable state

MAY 13, 1937

PUBLIC UTILITIES FORTNIGHTLY

right by default to the central government.

Mr. Wright's criticisms were directed principally at the statutory system and political precedent under which the commission has developed for a number of years. About the only general criticism that might be ventured about this report by a reviewer who has not sufficient knowledge of the factual background concerning the personnel of the Ohio commission to pass judgment upon or otherwise question Mr. Wright's findings thereon, might be to the effect that it seems too long and voluminous. There is some repetition. These are minor points that should not obscure the patent fact that Mr. Wright has in the main done a difficult job very well.

It is interesting to note the generally favorable reaction to the Wright report contained in the editorials of a number of Ohio daily newspapers. The *Youngstown Vindicator* suggested that the recent natural gas rate case involving Akron was a "practical object lesson supporting Mr. Wright's main thesis, that commission regulation of utilities in Ohio has bogged down." The *Cleveland Plain Dealer* thought the report supported the "general impression that the commission is painfully slow in reaching its decisions, brings to its deliberations a legalistic rather than engineering attitude of mind and does not meet the expectations of those responsible for its establishment." The *Toledo Blade* was struck by Mr. Wright's inference that municipal plant competition "holds rates for electricity down to a reasonable level, but there is no such threat of competition in telephone service or natural gas supply."

The *Lorain Journal* commended that portion of the report which held that the commission should act more on its own initiative instead of retreating to a *quasi* judicial grotto. The *Massillon Independent*, however, was cynical about whether Governor Davey would do anything about the report in view of the inaction on other Sherrill reports. Such also was the reaction of the *Dayton Herald*.

The *Cleveland News*, approving the report, stated: "If regulation of utilities is to be salvaged as a state's right, the machinery of regulation will have to be modernized." In a somewhat similar vein the *Cleveland Press* (Scripps-Howard) stated: "Whatever increase in Federal authority may take place, there will remain plenty of business for the state commissions within a sphere distinctly and inevitably their own. That business ought to be done better than it usually is." The *Akron Beacon* disapproved to the extent that it would abolish the commission altogether and return to the old "home rule" system of municipal regulation.

In fairness to the commission, however, it must be recalled that it had in the past and has at present many able and honest public servants. It is only natural, of course, in a world of change that institutions become creaky with age and at times need checking up, and occasional overhauling. This was the real purpose of the Wright report, and it is no reflection upon the commission personnel that they came to office at a time and under a statutory system that is apparently due for such renovation.

Another recent report that should interest those concerned with the regulation and operation of utilities is "Municipal Ownership of Electric Undertakings in Virginia," by Rowland A. Egger and James E. Gates. This neatly mimeographed booklet of 132 pages was released by the University of Virginia. It contains a foreword by Professor William E. Mosher of the University of Syracuse School of Public Affairs, who will be recalled as the former director of the Federal Power Commission's electric rate survey. In this capacity, it will also be recalled that Professor Mosher directed attention to the existence of obsolete, complicated, and, in some cases, ridiculous rate schedules still used by some private electric companies, such as the extreme example cited of a New England rural rate based on the number of milch cows a given farm is capable of sustaining.

WHAT OTHERS THINK

Although no such extreme was found among rates of Virginia municipal electric plants, the authors did find many schedules of a crude and discriminatory type. Of course, as the authors state in their preface, "This is a book for our friends, the managers and supervisors of the municipal electric plants in Virginia; we have not attempted in this study to bolster or to undermine public ownership."

UNDER such circumstances, it can be expected that the authors did not dwell unnecessarily upon the naïveté of Virginia municipal rate practices. However, with obvious sincerity, they did take several deep swings of the ax and let the chips fall where they would. Another passage from the preface indicates the fairness of their attitude:

And now for a final bit of plain talking before we write *finis* to the present volume. We are convinced that the time has come when municipal ownership of electric undertakings must be judged in the light of its contribution to social betterment and the more abundant life. It is not enough that mere engineering efficiency and fiscal adequacy be maintained in plant administration. While the authors plead guilty to distinctly "liberal" beliefs in the social desirability of deficit-financing, it seems clear that even if the plant must be operated at a profit they can be so operated in a manner vastly more conducive to the increased consumption of electric energy than at present. We suggest that the time has come for bold experimentation with promotional rate structures, for intensive programs of public education in the use of electrical appliances for sweeping improvements in municipal plant records systems, for courageous attack upon generally unsatisfactory conditions with regard to plant load factors, and for a careful reconsideration of the rôle of the electric plant in the municipal fiscal and administrative plan. We suggest that "what V.P.S. charges in Hampton" and "what Appalachian charges in Roanoke" is no longer the standard of comparison to which municipal ownership exclusively should address itself. It might be equally the part of ultimate wisdom to inquire into "what TVA charges in Norris." We plead for due consideration of the "third alternative"—increased total revenue, if public ownership must have profits, at lower rates.

On the whole, however, the book makes out a good case for municipal

ownership in Virginia as compared with private utilities operating there. The comparison of typical bills indicates that, apart from smaller communities, the charges of Virginia municipal plants are with relatively few exceptions lower for the same quantities of electricity consumed by domestic patrons than similar charges by private companies.

THE study likewise purports to corroborate the general conclusions reached by the Federal Power Survey to the effect that, in a number of cities, cash or service contributions are made to municipal governments which equal and, in some cases, exceed the amount of taxes which would have been paid if the operations were under private management. However, if the bookkeeping of those plants is in such a sorry state as the authors say it is, it would be difficult to arrive at such a conclusion with any great degree of certainty.

These Virginia cities, according to Dr. Mosher's foreword, are comparable in most respects with studies which have heretofore been made of municipal plants in New York and California. The Virginia study is especially interesting in its analysis of the character and quality of plant managers. Aside from the defects in accounting and rate structure, already mentioned, it would appear that experienced men are on the job protected by a tenure that rebuts the suggestion of political pressure on such employment.

The authors are not, apparently, in favor of commission regulation of municipal plant operations, aside from the filing of uniform reports, supervision of extra-territorial operations, and giving "coöperation" and advice. The authors pass gingerly over the basis for this conclusion with the rather vague observation that too much centralized control would stifle "local initiative" and the still more vague comment that the purposes and motives of private enterprise should not be confused with those of municipal self-government.

Nevertheless, it is difficult to see just how all the diverse methods of book-keeping, all the obsolescence in rate

PUBLIC UTILITIES FORTNIGHTLY

structures, and all the other heretofore irreducible factors that prevent fair comparisons with private enterprise can ever be eliminated or resolved into common denominators, if each and every municipal plant can do as it pleases about local rate policy, accounting, and what not. Certainly the mild check of advisory co-operation can hardly be expected to restrain the improvisations of local government.

ABOUT the best we can hope for, as long as those who cry loudest for municipal ownership insist on its right to evade responsible central regulation imposed upon private management, is that some municipal officials by their example may shame others into compliance. Such was the noteworthy step taken years ago by the highly successful Springfield, Ill., municipal plant under the guidance of its justly noted manager, Willis Spaulding, in voluntarily subjecting itself to the same classifications and rules laid down by the Illinois commission for private utilities. It must be said that there has been no noticeable stampede on the part of management of the municipal plants to follow suit.

In conclusion, it must be stated that

Messrs. Egger and Gates have contributed a valuable chapter to the growing literature on municipal utility operations in the several states. As Dr. Mosher observed, it is to be hoped that more of such data will be forthcoming in other states. There is little question of the sincerity and thoroughness of the authorship. It is barely possible, however, that some of the information furnished them by their "good friends," the plant managers, might be somewhat colored with civic optimism. For example, the Danville municipal utility plant (apparently the Blue Ribbon property of the commonwealth) for the year ending 1933, is reported as making a net profit of \$131,923.55, as compared with total revenues of \$402,246.87. That's a pretty neat profit on its face.

—M. R. K.

MUNICIPAL OWNERSHIP OF ELECTRIC UTILITY TAKINGS IN VIRGINIA. By Rowland Andrews Egger and James Edward Gates. Division of Publications of the Bureau of Public Administration, University of Virginia, Charlottesville, Va. Price, \$1.00. 132 pp.

INVESTIGATION AND ANALYSIS OF THE PUBLIC UTILITIES COMMISSION OF OHIO. Prepared by Howell Wright for the Ohio Government Survey. (December 31, 1936.) Columbus, Ohio.

Notes on Recent Publications

ADDRESS by Dr. Arthur E. Morgan, chairman TVA. Annual conference, University of Minnesota. March 30, 1937.

Dr. Morgan stressed the necessity for electric power operations in the Tennessee valley to be conducted "without political patronage, with honest and representative accounting and publicity, with fair treatment of necessary and useful private investments, and without wasteful duplication of facilities." He added, however, that it is for the government to say within legal limits whether such public services are to be governed by governmental or semiprivate corporations.

OUTLOOK FOR THE ELECTRIC UTILITIES, AS AFFECTED BY FEDERAL POWER PROGRAM. By Kendall K. Hoyt. *The Annalist*. April 2, 1937.

PUBLIC POWER PROJECTION. By James D. Ross. *The People's Money* (magazine). February, 1937.

A discussion of the advantages of public ownership by an associate member of the

Federal Securities and Exchange Commission.

SWEETNESS AND LIGHT VS. POWER AND LIGHT. Today. February 6, 1937.

A discussion by the "unofficial observer" of the internal conflict in managerial policy between members of the Tennessee Valley Authority.

TEMPORARY RATE ORDERS. By Robert W. Harbeson. *The Journal of Land & Public Utility Economics*. February, 1937.

The author, assistant professor of economics at Rutgers University, analyzes recent efforts to improve rate regulation in the light of the recent decision of the New York Court of Appeals upholding the temporary rate statute of that state (*Bronx Gas & Electric Co. v. Maltbie*, 14 P.U.R. (N.S.) 337). He traces the historical background, samples the case treatment, and concludes with an intelligent discussion of the merits and demerits of temporary rate fixing in general.

March of Events

Sees Power Shortage

THE area served by the Tennessee Valley Authority is just coming to an acute shortage of electric power, it was stated by Dr. Arthur E. Morgan, chairman of the TVA, last month on his visit to Boston to address the Phi Beta Kappa Association. Dr. Morgan stated:

"Two years ago the utilities contended there was a great overcapacity of producing facilities, but now, in the area within transmission distance of TVA at least, they are in distress because of lack of producing capacity. At present the TVA has a capacity of about 250,000 kilowatts. This will be doubled in two years or so, and we believe all this additional power will be needed when we are in position to deliver it, unless the whole business picture completely changes.

"I feel there is a shortage of producing capacity because old type plants, which should only be used as standbys, are being employed as regular equipment. The manufacturers of steam generators, who I believe cannot promise delivery in less than a year, are being forced to turn out old type generators because they cannot wait for plans to come through for the newest types.

"At Boulder dam the first generator installed has not been taken out of use for the usual tuning up, so great has been the demand for power from that source. Sometime this summer, it is hoped, the equipment can be withdrawn for this customary attention. My impression is that this shortage of producing capacity exists throughout the country."

Hurl Charges

CHARGES that Los Angeles public power interests are attempting to deprive the states of Arizona and Nevada of an opportunity to develop their own power resources were hurled last month at Washington at a conference called by Secretary of the Interior Ickes to consider possible revisions of the city's contracts with Boulder dam.

The appeal of the Metropolitan Water District, the Southern California Edison Company, the Bureau of Light and Power, and the city of Los Angeles for an extension of time and suspension of contract requirements for the district, was vigorously opposed by six states interested in the distribution of power from the dam.

Fearful that the water district's request for a 2-year moratorium on its power obligation and reduction of rates will prevent the payment of excess revenues to Arizona and

Nevada, representatives of both states objected to consideration of the proposals of James H. Howard, general counsel for the district.

The upper basin states of Colorado, Utah, New Mexico, and Wyoming are concerned because of the possible effect a decrease in revenues may have on a separate fund designed to aid them in improving their own power projects.

The suggestion of Howard that unified Federal operation of the Boulder dam plant would reduce expenses was criticized by the Los Angeles representative as well as the six opposing states. His proposal for a 2-year suspension of the district's power contract, which it will be unable to use until completion of the 266-mile Colorado river aqueduct, was generally applauded by the California interests, it was said.

Utility Propaganda Probe

THE Senate Interstate Commerce Committee on April 20th reported favorably a resolution sponsored by Senator George W. Norris of Nebraska authorizing a \$150,000 investigation by the Federal Trade Commission into propaganda activities of public utility interests.

The resolution, it was said, is directed at alleged efforts of private utility corporations to "control public opinion" against public ownership of electric power plants.

Norris, known as the "father" of the Tennessee valley power development, has repeatedly charged that utility companies have issued "propaganda" intended to influence the public against TVA. The resolution stated that there was reason to "believe that such efforts have persisted notwithstanding their former exposure (in 1933) by the Federal Trade Commission."

Britain Seeks Stock Sales Curb

A NEW wave of "share pushing" in Great Britain has caused the government to circulate warnings calculated to put every investor on guard, it was reported last month. The practice consists of selling worthless securities by high-pressure methods similar to those which in the United States drew the fire of the Securities and Exchange Commission.

Walter Runciman, president of the Board of Trade, announced that the Board of Trade had printed several million leaflets containing warnings against share pushers which would be distributed through postoffices, savings banks, and similar organizations in the United Kingdom. The problem was recognized re-

PUBLIC UTILITIES FORTNIGHTLY

cently as so serious that the Board of Trade organized a special share-pushing committee, which is studying the methods of unscrupulous dealers, but Mr. Runciman decided to take the protective campaign direct to the people, while awaiting the committee's report.

The methods used were said to be similar to those in vogue periodically in the United

States, with the additional parallel that widows were said to be the easiest prey.

Financial observers noted that the British government's warnings followed almost exactly the publicity issued by the SEC, with the important exception that the United States group has not attempted to reach the whole body of the investing public by direct circulars.

Alabama

Receives REA Allotment

GORDON Persons, chairman of the state Rural Electrification Authority, on April 12th announced receipt of an allotment of \$30,000 for construction of a generating plant at Salitpa, Clarke county. Persons said it would be the "first REA generating plant in the deep South" and would generate power to serve customers on a 112-mile rural line in Clarke and Washington counties.

The chairman said 52 miles of the line had been completed and an allotment for the remaining 60 miles, to cost \$60,000, had been received. The REA, he said, has adopted a policy of grouping counties into one large project and the largest of this type planned calls for construction of 811 miles of line in five counties. Persons said the authority would build its own generating plant in that section also "unless a satisfactory rate can be obtained from the Alabama Water Service Company."

Arkansas

Rural Power Rules Drafted

DECLARING that Arkansas is "at the threshold of very rapid rural electric development," the state utilities commission on April 22nd announced its rules and regulations governing applications for permits to extend rural electrification lines.

The regulations do not affect proposed rural co-operatives, several of which have been organized in the state in connection with the Rural Electrification Administration. A Pulaski-Lonoke county co-operative has been approved for a \$190,000 loan from the REA. All such co-operatives are required by law to secure a certificate of convenience and necessity from the commission. Loans for several have been held up because the REA declared wholesale power rates in Arkansas are excessive, it was said.

The commission's order said that less than 2 per cent of Arkansas farms now have electricity. Among the regulations promulgated were the following:

Permits must be secured from the commission for all rural extensions except: those made by rural electric co-operatives within the area for which they have a permit; extensions of less than one mile in length, and extensions of less than three miles in length in an area for which a permit already has been granted.

Incorporated cities and towns not now served by central station electric service may be included in the electric development of a rural area.

Line extensions into territory outside and contiguous to incorporated cities and towns may be considered as extensions to the distribution system of the city or town when served at the urban rates of the city or town, providing they first are approved by the commission.

The applicant for a certificate of convenience and necessity to serve a rural area shall select an area which can and should be developed as a unit. Existing electric facilities, physical characteristics, the locations of roads, cities, towns, and farms, and the potential market for electric service are factors which should be considered in deciding upon the area to be served.

The development of a project shall be considered as a whole and its economic feasibility shall be determined by the total estimated cost and return of the entire project. Development in an area subsequent to the initial construction shall be considered as a part of the initial project in determining its economic feasibility.

Permits shall expire four months after date of issue unless construction work has been started and shows promise of completion at an early date. They may be renewed and extended upon application to the commission.

The applicant should build or supply at his own expense all of the lines and equipment up to the meter loop serving rural customers, except in such cases as the department may otherwise approve. This does not apply to co-operatives. Utilities now serving rural areas may apply for a permit to establish boundaries.

THE MARCH OF EVENTS

Cut-off to Collect Tax Upheld

PUBLIC utilities have the right to discontinue service to customers refusing to pay the sales tax on service bills, the state supreme court decided on April 19th, reversing a decree of the Arkansas Chancery Court enjoining the Arkansas Power and Light Company from discontinuing service to a rice grower who had refused to pay the sales tax on his bill for electricity.

Ben Roth had entered into a contract with the power company by which he was to pay for electric current after harvesting his rice crop. As security for payment, he gave a chattel mortgage on his crop. The bill for actual current was paid according to contract, but Roth refused to pay the 2 per cent sales tax which the company was required to collect. The company served notice it would discontinue service until the tax was paid. Roth obtained a decree from the chancery court enjoining the discontinuance of electrical service and ordering cancellation of the mortgage. The supreme court said :

"The tax was a part of the sales price and is, therefore, a part of the debt secured by the mortgage, the foreclosure of which may be had if appellee persists in his refusal to pay the debt which the mortgage secured. It necessarily follows that the injunction restraining appellant from discontinuing service so long as appellee refuses to pay the sales tax therefor, must be dissolved."

Roth contended that the tax was not a debt secured by the mortgage and that the right to enforce payment was vested solely in the commissioner of revenue. The high court held that, under the law, the company is required to add the tax to a consumer's bill, and the sum total becomes the price which the purchaser must pay, the tax being a part of the cost to the

consumer of the article which is sold to him.

Power Permit Delayed

ACTION was deferred by the state utilities commission recently on an application of Charles Cowell of Strawberry, Lawrence county, for a permit to furnish electric power to five Lawrence county towns from a generating plant which he proposes to build by constructing a dam across Strawberry river.

Cowell was given until May 10th to submit proof of his ability to finance the proposed project. He said he would be able to furnish current to Strawberry, Jessup, Powhatan, Lynn, and Smithville and nearby rural areas.

The commission instructed the Arkansas-Missouri Power Company, which is opposing Cowell's project, claiming it already was formulating plans to serve the area, to file data on the number and location of its prospective customers before May 10th. Representatives of the power company told the commission that Strawberry river is not of sufficient size to generate current. Cowell denied the charge that he would be unable financially to carry out his plans.

Seeks Information

THE state planning board's committee on rural electrification recently asked the board to prepare for its use maps of all Arkansas counties showing utility lines, highways, population and population trends, sources of income, and the percentage of inhabitants who are owners, renters, or share-croppers.

From information furnished by these maps, Chairman Thomas Fitzhugh said, the committee hopes to determine where rural electric lines are most needed and where rural coöperative projects could most easily "pay out."

California

Hetchy Lawsuit

PREPARATION of the government's contemplated suit to compel San Francisco to cancel its agency agreement for disposal of Hetch Hetchy power through the Pacific Gas and Electric Company was begun by U. S. Attorney H. H. McPike last month. In a conference with City Attorney O'Toole, McPike said he had received data on the case from Attorney General Cummings' office with instructions to prosecute the case without delay. No mention was made in the instructions of an application for a temporary restraining order, McPike said. He indicated, however, he might make such an application if such a proposal were approved by the attorney general.

The government's petition is to be prepared in San Francisco, but submitted to Washington

before being filed in the local Federal court. McPike described this as usual procedure.

O'Toole informed the United States attorney any application for a temporary injunction would be strenuously opposed. Regarding a temporary restraining order, O'Toole argued it would not be justified because the *status quo* would be maintained without such procedure.

Permits Nonprofit Corporations

THE state senate on April 14th passed a bill by Senator John Phillips of Riverside county permitting farmers to form nonprofit corporations for purchase of electric power. Under the bill, these corporations could issue revenue bonds and make purchases of electrical energy from either privately or publicly owned utilities.

PUBLIC UTILITIES FORTNIGHTLY

Signs Bond Bill

As he protested that he still seriously objected to an important feature of the measure, Governor Merriam on April 16th signed Senate Bill 200, authorizing the issuance of revenue bonds for a great variety of public projects. The important feature he objected to, he said, was failure to require that such bonds be approved by a two-thirds vote of the people before they could be issued.

He said he felt that he should explain why he signed this bill when two years ago he vetoed a bill that was much milder in its general provisions. That bill provided revenue bonds for water and power projects only. The bill he recently signed permits the issuance of revenue bonds not only for water and power but for projects that might be launched by municipalities or districts, such as for transportation systems, sewers, lighting districts, or refuse disposal plants.

The governor, although protesting he was offering no "alibi," said he felt that in view of his vetoing the revenue bond measure last year the public should know why he now did the "about-face," not giving that term, however, it was said. He then stated his serious objection to the failure to include the two-

thirds vote requirement on a bond issue.

He said that as to other objections he had two years ago, he felt that the authors of the measure had made a special effort to overcome them. He stated:

"However, I think that if the same measure of two years ago had come to me this year again, I would sign it. I would do it because since that time a new legislature has been elected and they have passed this revenue bond measure. I therefore feel that it comes in the nature of a mandate from the people."

Approves Rate Slash

ANOTHER rate reduction on the sale of electrical current won approval from the Los Angeles Board of Water and Power Commissioners last month. On recommendation of Chief Electrical Engineer Scattergood, power bureau rate experts were instructed to prepare the new rate schedule. The savings to the rate-payers, it was stated, will amount to approximately \$1,250,000 annually.

In February, 1936, rates were reduced by approximately \$2,500,000. Scattergood said revenues, since the acquisition of the electrical properties of the Los Angeles Gas and Electric Corporation, justify the reduction.

Georgia

Seeks Power Rate Cut

THE state public service commission on April 15th moved to bring about a reduction in commercial power rates over the state. The commission cited the Georgia Power Company and the Georgia Power & Light Company, the latter operating in Waycross, Valdosta, and other south Georgia centers, to show cause why their commercial rates should not be reduced. The investigation by the commission will be started on May 18th.

The commercial rate is one used by business concerns not engaged in manufacturing. The commission also will go into the residential rate of customers of the Georgia Light & Power Company, but residential consumers of the

Georgia Power Company were not affected by the order.

Chairman Jud P. Wilhoit, of the public service commission, said commercial customers of the Georgia Power Company paid more than \$6,000,000 for service in 1936. The present commercial rate schedule ranges from 6½ cents per kilowatt for 25 kilowatts or less to 2 cents per kilowatt for 2,000 kilowatts or more.

The Georgia Power Company also has in operation an "inducement" rate which materially lowers the cost to the consumer. It is similar to the inducement rate offered residential consumers and is available to those concerns which use more power this year than they did last year. Chairman Wilhoit said the commission plans an "exhaustive investigation."

Indiana

Cities May Appeal Tax Ruling

CITY officials from all parts of Indiana, members of the Indiana Municipal League, met on April 15th at Indianapolis to consider an appeal from the Indiana Supreme Court's decision in the St. Joseph waterworks case, involving tax liability of municipally owned utilities.

It was proposed that a decision of the United States Supreme Court be sought in the case, and the league members discussed the advisability of such procedure and the plan of action to be followed.

The state supreme court recently handed down a decision which reversed the St. Joseph circuit court's opinion that utilities owned by

THE MARCH OF EVENTS

municipalities are free from taxation in Indiana. Many of the league members contended that the state law regarding taxation of such utilities is not constitutional and believed their stand was strengthened somewhat by the U. S. Supreme Court's decision in the case of *Brush vs. Commissioner of Internal Revenue*. The Supreme Court in that case, it was explained, found that municipal waterworks perform a governmental function and are not subject to taxation.

A committee was appointed at the meeting to plan the battle which, for the present, will be centered around the South Bend petition for a rehearing of its case before the state supreme court. In the event a rehearing is denied, or the decision is affirmed by the court, the league and South Bend city officials plan to carry the case to the United States Supreme Court. The South Bend petition for a rehearing was to be filed some time in May, and will charge that the court's decision was handed down without due consideration of the fact that the company's services are largely governmental

and that the method of assessment of the physical property for purposes of taxation is unfair.

Utility Tax Levy Increased

ASSESSMENTS on three major utilities operating in the state were announced last month by the state board of tax commissioners.

Property of the Indiana Bell Telephone Company was assessed at \$38,250,535, including the local assessments. Last year the amount was \$34,936,242. The Illinois Bell Telephone Company assessment was \$5,255,755, an increase of \$115,000. It operates in Lake, Newton, and Porter counties, whereas the Indiana Bell operates in 85 of the state's 92 counties.

Assessment of the American Telephone and Telegraph Company property totaled \$21,555,735, whereas last year the amount was \$19,607,411.

The board explained that the increased assessments were due to larger earnings, additions, and increased customers.

Iowa

Change Commission Name

BEGINNING July 4th the Iowa Board of Railroad Commissioners will become the Iowa State Commerce Commission. Final action on efforts to change the name of the state railroad commission was completed last month when

both houses of the legislature accepted a conference committee report on the bill that gives the commission its new name effective next July 4th.

The house and senate failed to agree on the name and after considerable jockeying the final accord was reached.

Kansas

Giant Co-op System Planned

AGITATION for electricity for farmers in ten northeast Kansas counties may result in the nation's largest power coöperative, according to word brought to Topeka recently by Chester Lake, senior field representative of the Rural Electrification Administration. If the county organizations of farmers interested in supplying their farms with electricity through government-financed lines get together in a coöperative, Mr. Lake said, they probably will require a loan of \$5,000,000 for installation of the lines.

A recent survey showed that 14,010 farmers within 40 miles of Topeka are without electricity and eligible to organize and ask the REA for aid in installing lines to their farms. In this area 1,011 more farmers are using privately owned plants which, figures show, cost much more to operate than would electricity furnished through the coöperative.

The REA representative said it was quite possible that the farm bureau could—as it has

in other districts—take over the legal and engineering phases of the work after the coöperative has become organized.

In the following counties farmers have organized, selected their officers for administration of the selling of power to organization members, and have received from the REA an allotment of funds for installation of the lines: Saline, Dickinson, Ottawa, Brown, and Atchison. Counties which have organized but which have not yet received allotments of funds are: Shawnee, Douglas, Jackson, Doniphan, and Osage.

City Plant Bonds Attacked

A PETITION for a writ of alternative mandamus to halt the projected construction of a municipal light and power plant at Goodland was filed in the state supreme court on April 15th by the Citizens' Utilities Company, of Delaware, which supplies the city's electrical energy.

In seeking the writ, the utilities company

MAY 13, 1937

PUBLIC UTILITIES FORTNIGHTLY

contended that \$200,000 worth of bonds voted by the city of Goodland for construction of a municipal plant was illegal. It contended the ballot was not in compliance with state laws and was void because it contained no estimate

of the cost of the proposed municipal light plant.

The application sought to compel George Robb, state auditor, to declare void the registration of the \$200,000 bond issue.

Kentucky

Public Service Act Upheld

VALIDITY of the act establishing the state public service commission as the proper tribunal to pass upon the reasonableness of utility rates was sustained by the court of appeals on April 20th.

The act was called into question by counsel for W. Taulbee Smith, Pikeville, circuit court clerk there, who sued the Southern Bell Telephone and Telegraph Company to compel it to install a telephone in his public office on the following conditions: (1) that no tolls be charged on calls going solely through the Pikeville exchange; (2) that charges be made against the telephone only when Smith personally assured the operator he would stand for them.

The telephone company immediately sought dismissal of the suit on the ground that the state public service commission had original jurisdiction to fix rates and terms concerning utility service. Smith countered with the suggestion that creation of the public service commission was a void act on the ground that it deprived him "of life, liberty, and happiness without due process of law."

The lower court dismissed the petition and Smith appealed. The appellate court, in an opinion prepared by Judge Virgil H. Baird, Glasgow, held that "the right to telephone service is not an inherent nor a natural right." He dismissed the suggestion that the act deprived Smith of his constitutional rights, and concluded that the "act in no respect is in opposition to the Constitution of Kentucky, the Constitution of the United States or any part thereof."

Massachusetts

City Plant Vote Bill Killed

By a vote of 15 to 23, the state senate last month rejected a bill which would have allowed municipalities, by a vote taken in any one year, to establish municipal lighting plants.

Under existing law, votes must be taken twice before such municipal plants can be es-

tablished. Senator P. Eugene Casey, of Milford made a fight for the one-vote bill, contending that the lighting companies are effecting such large mergers that they will be all-powerful to prevent cities and towns going into the lighting business unless the bill was passed.

Senator Angier L. Goodwin of Melrose opposed the new bill.

Minnesota

Utility Bills

THE state senate and house on April 20th passed a bill placing the burden of proof in telephone rate cases on the telephone company involved, and requiring the company to pay the expense of valuation proceedings up to a maximum of one per cent of its gross receipts.

A bill permitting municipal power plants to extend their lines to any place in the state was passed on the same day by the house of representatives by a vote of 72 to 35 and sent to the senate.

An amendment offered by Representative Richard Tige of Wayzata which would make the bill inoperative in cities operating under a

home rule charter, was defeated by a vote of 52 to 56 on a roll call. Under the bill the power service could be extended on majority vote of the governing body of the municipality. At present, a three-fifths vote is required and the lines can be extended only 30 miles beyond the limits of the municipality in which the plant is located.

As originally introduced, the bill would permit municipalities to extend their lines up to 50 miles. The measure was amended, on motion of Representative S. A. Stockwell of Minneapolis, author of the bill, to omit the 50-mile limit and permit municipalities to extend their power lines to any place within the state of Minnesota.

THE MARCH OF EVENTS

New Jersey

McCarter Reelected

THOMAS N. McCarter was reelected president of the Public Service Corporation of New Jersey, holding company for various utilities, by the directors last month for the thirty-fifth time. McCarter has been president since the corporation was founded in 1903.

Addressing the annual stockholders' meeting of the Public Service Corporation, McCarter said the "Public Service Corporation of New Jersey has no angel like the United States government to pour in hundreds of millions of dollars as in the case of the Tennessee Valley Authority." He also answered

a comparison of New Jersey and TVA electric rates made at a League for Industrial Democracy meeting in Trenton on April 17th. He referred to a statement which he said was made at the league conference that in 1934 the state's electrical consumers paid \$76,000,000 for two billion kilowatt hours, while under TVA rates the cost would have been \$37,000,000.

The rates of the Public Service Electric & Gas Company, McCarter said, compared favorably with those of similar corporations and he pointed out that last year \$20,000,000, one-sixth of the corporation's receipts, was paid to the state in taxes.

New York

Orders CIO Recognition

IN a decision unprecedented in the northern New York judicial district, Federal Judge Frederick H. Bryant on April 23rd ordered receivers of the Schenectady Railway Company to recognize the Transport Workers' Industrial Union, a CIO affiliate, as sole bargaining agency for its employees. The ruling was issued on application of Abram V. Louer and James C. Cooper, receivers, who asked instructions for the proper procedure in dealing with the union. Judge Bryant stated:

"I will instruct the receivers to meet with representatives of that organization (the union) whenever they require it, and to meet any demands they may make. However, I cannot give the receivers at this time any instructions or approval of any demands, the character of which the court does not know."

"The business of the company is wholly intrastate in character and is not affected by the provisions of the Wagner labor relations act," Judge Bryant said when William D. Smith, counsel for the union, mentioned the act.

St. Lawrence Pact Urged

IN its annual report filed April 23rd with Governor Lehman and the state legislature, the Power Authority of the State of New York declared that in another decade the state will be faced with a serious shortage of cheap power unless steps are taken without delay to make available all the power potentialities of the St. Lawrence and Niagara rivers.

The St. Lawrence and Niagara rivers form part of the same watershed, the report said, and to deal with the two under one comprehensive plan would be a logical outgrowth of this natural relationship, especially since the needs of the province of Ontario on the Can-

adian side of the two rivers must be taken into consideration. The report asserted:

"The Province of Ontario and the state of New York, in which these international power sites are located, have a common interest in them as their most important sources of cheap power. A treaty which would provide for the development by progressive stages of the international rapids section and the Niagara river would meet the various needs and demands for power, both present and future, on either side of the boundary."

Failure to push harnessing of the St. Lawrence and the unused power of the Niagara river would compel production by steam plants of the equivalent of the power these two seats of hydroelectric power could provide, the report declared, and this would increase the cost to consumers by at least \$27,000,000 a year. According to the report the emergency which the state would face, "if public development of the St. Lawrence and Niagara resources is further delayed, is more serious than the figure would indicate."

Complains of Reduced Rates

FLOYD L. CARLISLE, chairman of the New York Edison Company, and Frank W. Smith, president of the company, were charged in a suit filed in the state supreme court April 13th with conspiring to prevent the erection of private electric generating plants in 1,102 buildings in New York city.

The plaintiff, James J. O'Brien, an architect, accused the utility executives of inducing the state public service commission to approve lower electric rates for the buildings. He alleged that by this he was deprived of a contract to design and install power plants in three buildings owned by corporations headed by Walter J. Salmon.

PUBLIC UTILITIES FORTNIGHTLY

Mr. O'Brien, acting as his own counsel, named as defendants in addition to Mr. Carlisle and Mr. Smith, the Edison Company and the state public service commission. He pleaded that the commission be restrained from approving any rates under which the electric energy could be sold at cost or less than cost, or without showing a proper return on invested capital.

An injunction was also asked to prevent the

commission from permitting the Edison Company to use its corporate funds for the purpose of "purchasing, dismantling and keeping vacant cellars and basements in buildings for the purpose of preventing their use for private plants and from permitting the company to maintain any organization for the purpose of spying upon and preventing owners of buildings in New York from erecting and operating generating plants."

North Carolina

Power Rate Cut

THE Greenville Water and Light Commission recently announced a reduction in its domestic rate which is designed to save customers at least \$18,000 a year. The reduction will take effect on July 1st, beginning of the next fiscal year. Decision to defer application of the new rate until the end of this fiscal year was reached because of the fact the budget is already made out and drawn

up in line with revenue anticipated from the old rates.

The commission voted at its February meeting to reduce the rate and at a meeting last month it was decided to defer putting the reduction into effect at the present time. The new rate applies to all customers included in the domestic class. Rural customers will benefit also, it was said, as well as those in Falkland, Stockes, Bell Arthur, Ballard's Cross Roads, and other communities.

Ohio

Seeks City Gas "Yardstick"

OPERATION of a municipal gas plant to function as a rate regulator similar to the municipal light plant was suggested to the utilities committee of the Cleveland city council on April 14th by Councilman William C. Reed. Reed told the committee he saw no other permanent solution to the problem of high gas rates than to submit a 2-mill tax levy to voters in November and build a distribution system to compete with that of the East Ohio Gas Company.

The councilman, who is chairman of the committee and one of the principal figures in the current negotiations with the company, said he had been told there was an ample supply of gas in new Ohio fields, which the city could obtain for 20 to 22 cents a thousand feet. The East Ohio buys its gas in West Virginia, at 37.1 cents.

City Law Director Alfred Clum said he believed a gas plant could not be operated under present Ohio law. Reed said he would ask for an opinion from Attorney General Herbert S. Duffy.

The committee voted, at the request of Clum, to invite Raymond T. Jackson, attorney, to meet with the committee and suggest a procedure for the city. The committee and city officials are demanding a rate reduction, while the company is demanding an increase from an average rate of 58 cents to 64 cents. Jackson was the city's special counsel in the 1931 litigation before the state public utilities commission which resulted in a rate reduction.

Reed said he believed a municipal gas plant should aim to serve about 10 per cent of present gas consumers. The light plant serves about 12 per cent of the light and power consumers.

Pennsylvania

Gas Rate Reduced

A SAVING of approximately \$83,700 a year was given gas consumers of the Scranton-Springbrook Water Service Company in a new tariff filed April 22nd with the state public utility commission, effective May 24th.

The commission said consumers in the Scranton area would get \$80,000 of the reduction and those in the Clarks Summit area \$3,700. An optional general service rate was established throughout the company's territory. Reductions will be effected for all consumption above 400 cubic feet a month.

THE MARCH OF EVENTS

Challenges Power Board

COUNSEL for six Pennsylvania utilities, renewing a demand to inspect correspondence with Pennsylvania authorities, challenged Federal Power Commission jurisdiction on April 15th to investigate the Associated Gas & Electric system. They contend the inquiry was for the purpose of obtaining information on "purely local matters" for the benefit of the Pennsylvania Public Utility Commission.

Power commission attorneys denied the assertion, but were overruled in their objection to admission of documents which utilities counsel contended was evidence that correspondence with Governor Earle and the state commission was omitted from the official file. The utilities lawyers contend the correspondence would show the inquiry was ordered on behalf of Pennsylvania and was beyond the power of the Federal body.

Dozier A. DeVane, Federal solicitor, maintained the documents were immaterial. Frank L. Hamton, presiding examiner, admitted them with the explanation he would rather err in receiving irrelevant testimony than make the mistake of excluding evidence that possibly might have a bearing on the issues.

The hearings were later recessed pending outcome of a petition filed by the system's

affiliates with the U. S. Circuit Court at Philadelphia for an injunction to restrain the commission investigation which the companies claim is beyond the power of the Federal government.

Offers Utility Observer Plan

CREATION of public utility observers, who would attend meetings of boards of directors of utility companies and report their decisions at once to the new state public utility commission was proposed in a bill introduced recently by Senator H. Jerome Jaspan of Philadelphia.

The bill, Jaspan said, would prevent the dissipation of the funds and assets of utilities at the source instead of attempting to discover it several years later "when remedial action would be of little good." The observers would be paid as high as \$5,000 a year, and Jaspan pointed out that under the terms of the companion bill to the state public service commission ripper all expenses of the commission are borne by the utilities. No more than two observers would be assigned to any public service company, companies would be required to send notices of meetings to observers, and penalties of \$5,000 would be imposed for violations, according to the measure.

Tennessee

More Power Needed at Nashville

PLANS for the construction of a \$2,000,000 steam-power auxiliary plant at Nashville were disclosed by the Tennessee Electric Power Company last month as the state railroad and public utilities commission announced that, as the result of a hearing last March, it may order the utility to purchase power from the Tennessee Valley Authority.

Jo C. Guild, Jr., president of the power company, confirmed plans for the plant. He said more than \$750,000 already had been spent for equipment, and that construction would begin immediately on approval of the plans. The proposal was discussed with the

commission several weeks ago, Mr. Guild said, and resulted in an order issued on April 15th requiring the utility to "show cause why it should not immediately increase the capacity it has available for the distribution of electricity in the Nashville area."

Porter Dunlap, chairman of the railroad and utility commission, said the hearing represented the first move by a state regulatory agency contemplating possible compulsory measures requiring a power company to deal with the TVA. Mr. Guild, on the other hand, pointed out that the Tennessee Electric Power Company, a subsidiary of the Commonwealth and Southern Corporation, had dealt with the governmental agency in the past but had terminated its contract because of expansion of its own facilities.

Wisconsin

Asks State TVA Powers

WITH the administration's Wisconsin Development Authority bill not yet out of the hearing stage in the lower house, its sponsor, Assemblyman Andrew Biemiller, recently introduced a resolution amending the constitution to allow the state the same freedom to

enter the power field in its own name that the "little TVA" bill allows it in the name of a dummy corporation.

The resolution would create a new article in the constitution, giving the state the right to generate, distribute, buy, or sell electricity for the purpose of recapturing and "developing the water power of the state."

The Latest Utility Rulings

Write-up of Assets Not Permitted in Consolidation of Affiliates

THE New Hampshire commission authorized the White Mountain Power Company to acquire utility properties of various affiliated companies and to issue securities subject to conditions insisted upon by the commission. The commission refused to treat the transaction as a sale of assets by underlying companies at a designated purchase price in excess of the book value of the properties acquired.

The transaction, although appearing on its face as a purchase and sale was said to be in fact primarily an exchange or substitution of securities and corporate title to property, with no real change in ownership. Non-par common stock if based upon book assets of the underlying companies would have a value of \$5.28 per share, while such stock if based upon the proposed purchase price would have a value of \$50 per share. The commission said:

It is scarcely conceivable that we would be asked to authorize such a procedure in the case of a going utility merely because of an alleged appreciation of its assets and without any change of ownership. Yet these petitioners seek just such authority in this instance under the guise of a purchase and sale of property between a buyer and a seller who are in reality one. If such a transaction were to be approved it is difficult to see how we could withhold authorization whenever a utility, realizing that construction costs

and values were rising, might choose to organize an affiliate to which it might convey its property at a sufficiently high price to claim a right to issue securities for which there might otherwise be no basis and, as here, without any additional investment whatever. Despite the fact that we are convinced of the desirability of the consolidation as such, we are not persuaded that it would be for the public good if effected upon the terms proposed.

The consolidation was deemed to be for the public good in view of economies which would result, as well as immediate revisions of domestic rates which would result in net savings to patrons.

The commission made the determination that upon consolidation of the underlying companies their continued existence after the satisfaction of all claims against them would serve no useful purpose and therefore that they should thereupon be dissolved. Securities to be issued by the new consolidated company were required to be issued to the underlying companies ratably to their respective net worths as shown by their books as of the effective date of the transfer in exchange for their assets. Distribution of securities, cancellation of intercompany claims, and assumption of liabilities were to be reported seasonably and in detail to the commission. *Re White Mountain Power Co. (D-F1792, Order No. 3271).*



Rates for Domestic and Commercial Service

CHARGES that an unjust and unreasonable discrimination was being suffered by customers, most of whom owned four-family dwellings and resided in them, were dismissed by the New York commission. The commission

pointed out the difference between residential and commercial service and Commissioner Van Namee, summing up the situation, said:

Considering the difference in diversity, the time of maximum demand of residential

THE LATEST UTILITY RULINGS

users as opposed to that of commercial customers and the other points of difference brought out at the hearings, I feel that the differentials in rate between the residential and commercial schedules are not unjust or inequitable and do not constitute undue discrimination.

Attention was directed to the fact that the situation is different in both theory and practice when electricity is used for hall lighting, central heating motors, and other general uses in multiple dwellings as distinguished from the use of electricity for these purposes of a single family under a residential rate. Residential rates, it was said, are constructed on the basis of the use for each residential customer being metered separately from the consumption of other customers on the

rate. The quick drop to low kilowatt hour charges is based on the high diversity of residential customers in these blocks and the assurance that their simultaneous demand will be low. Commissioner Van Namee continued with this statement:

When the usage of two residences is combined the practical effect is to start the bill for one residence in the low rate block, thus avoiding the initial charge and high blocks. This would be inequitable and unjust to other residential users who have separate bills, each bill starting with the relatively high initial unit charges in order to meet each customer's demand and "customer" costs.

Customers of Electricity v. Brooklyn Edison Co., Inc. (Case No. 8945).



Conflicting Views of Federal and State Commissions on Merger

An application for approval of the sale of property and franchises of the Northern Pennsylvania Power Company to its parent company, the Metropolitan Edison Company, was approved by the Federal Power Commission but was disapproved by the Pennsylvania commission. Both commissions had previously disapproved the merger and the companies had submitted a new proposal eliminating the objection raised by the Federal commission, which was also one of the objections raised by the state commission.

Draining of the resources of the parent company through the payment of the purchase price by a transfer of securities and cash was the primary objection. On the amended application it was proposed to make book entries without any movement of cash and securities. The state commission, however, declared that this met only one of the objections and that, among other things, the proposed consideration was excessive.

Three of the state commissioners dissented on the ground that notwithstanding the excessive consideration proposed the merger was desirable and should be approved subject to conditions. Com-

missioner Egan explained his stand:

While admittedly the basis of jurisdiction of the two commissions is dissimilar, it appears to me that there should be cogent reasons motivating a state commission in disapproving a merger approved by a Federal commission having concurrent jurisdiction. Such reasons do not appear to the writer to be present in this case.

The prevailing opinion, however, did not coincide with this viewpoint, but it was said:

The purposes of the Federal Power Act, which governs the regulation of electric utility companies engaged in interstate commerce, do not embrace the particular purposes of our Public Service Company Law, governing the regulation of rates and service of the public service companies within this commonwealth and engaged in intra-state business. While, under the Federal Power Act, the proposed sale may be consistent with the public interest, under the provisions of The Public Service Company Law, which must be our guide to regulation within this commonwealth, it appears to us that the approval of the sale is not necessary or proper for the service, accommodation, convenience, or safety of the public, as provided by Art. V, § 18, of our act.

The suggested benefits of the merger did not appear convincing to the com-

PUBLIC UTILITIES FORTNIGHTLY

mission. It was said that there would result the merging of two wholly dissimilar and widely separated areas. In the process of such merger the identity of the two areas would become lost, together with fixed capital, depreciation, operating revenues, and expenses of these two

areas so that adequate regulation by the state commission of the rates, service, and facilities of the companies involved would be rendered more difficult if not virtually impossible. *Re Northern Pennsylvania Power Co. et al.* (Application Docket No. 33774).



Railroad Rate-making Practices Not Applicable to Motor Carriers

ALTHOUGH both railroads and motor carriers provide modes of transporting property with respect to invested capital, they stand at opposite extremes, it was pointed out by the Connecticut commission in a case involving rates for transportation of coal by motor vehicle. In railroad transportation the major consideration in rate making must be to secure a return on fixed capital. Operating expenses represent a relatively minor consideration. The necessity for this investment also is a protection against direct competition and affords reasonable assurance that such business as may be developed will be continued. As to rates for motor carriers, however, any schedule must have its foundation primarily in expense, time, and distance, including, of course, a reasonable profit. The commission said:

Rate making in every public employment is governed by the same principles and has the same purpose. Stated in general terms its purpose is to provide an equitable distribution among customers of the cost or burden of the service rendered, having regard to the legal obligations incidental to such employment. The complexity of the problem is dependent upon the number of elements to be considered in calculating the

cost or burden of the service and other peculiarities of the particular employment.

The business of transporting property in motor vehicles as a public employment is of such character as to make its rate problem of a relatively simple nature. For practical purposes the cost or burden of the service can be measured with sufficient accuracy by an estimate of operating expenses. The only essential investment in property having any element of permanency is the motor truck. The useful life of this is so limited that it can be reduced to an item of operating expense through depreciation with sufficient precision to meet all practical requirements. In addition to this the problem is simplified by the fact that the motor truck is the sole unit of transportation.

Equalization between localities was disapproved, although such a factor has been permitted in fixing railroad rates on the assumption that "any rate which will more than cover the expense of moving the cars and handling the goods is a paying rate, provided the business can be had on no other terms." The commission was of the opinion that a motor carrier should not serve as a sponge to absorb the difference in cost of transportation over different distances. *Re Rates for Transportation of Bituminous Coal by Motor Common Carriers* (Docket No. 6395).



Foreign Business Corporation Not Authorized to Construct and Operate Transmission Lines

APETITION by a Pennsylvania business corporation, not having corporate power to operate as a public utility, for authority to construct a gas plant and to exercise franchises granted by cer-

tain towns in New York state, was denied by the New York commission on the ground that the corporation had no legal capacity to receive and exercise such franchises.

THE LATEST UTILITY RULINGS

The applicant, alleging that it was not required to obtain commission consent, had received franchises and constructed a gas line to supply service to a distributing utility in New York state. After a determination by the commission that such construction and exercise of rights must be approved by the commission, the corporation asked authorization *nunc pro tunc*. The commission, however, concluded that the corporation was without legal capacity to receive and to exercise franchise privileges in the public highways, and that the municipalities had no power to grant authority to occupy the public streets unless the donee of that right undertakes to serve the public. Commissioner Burritt said:

Either the petitioner is a public utility with the rights and privileges and the obligations to serve the public, which go with such a status, or it is not. If it is not a public utility then it cannot acquire the

rights and privileges and avoid the obligations thereof. I hold that the local consents obtained are illegal because the Penn-York Natural Gas Corporation does not have the legal capacity to hold them and that our certificate of approval cannot be given because this business corporation is organized for private purposes and cannot legally receive them.

In view of the fact that discontinuance of service would result in the withdrawing of the supply of natural gas to a large number of customers of the distributing utility, no action was taken to discontinue the service so long as the corporation proceeded with all possible speed and diligence to establish its operations as legal and proper. The corporation proposed to organize a new company competent to hold the necessary consents and rights of way and to file a new application with the commission. *Re Penn-York Natural Gas Corp. (Case No. 9036).*



Improvement of Company's Finances Would Indirectly Benefit Ratepayers

THE North Dakota commission, in authorizing the issuance of promissory notes to secure funds to meet obligations which would presently become due, said that there would be an interest saving on the obligations of the company and the financial condition of the company would be improved by the arrangement. The commission added:

Although any savings to the utility by reason of the transaction will not necessarily be reflected in customers' rates, nev-

ertheless, it is the opinion of the commission that the better the financial structure of the company, the more able it will be to render adequate service to its customers, and in the final analysis the rates of the company to the customers will reflect any savings made by the company in its financing. These statements are not to be taken as any indication that the commission, in a valuation or rate proceedings, would be bound as to valuation for rate-making purposes by these findings.

Re Montana-Dakota Utilities Co. (Case No. 3594).



Corporation Not Permitted to Acquire WPA Project from Township

AUTHORITY was sought from the Pennsylvania commission for the incorporation and beginning of the exercise of rights, powers and privileges of supplying water to the public in a town where a waterworks had been constructed with WPA labor. The corpora-

tion proposed to purchase and operate the waterworks owned by the township. The commission, in denying authority, declared:

The present thirty-six customers were given an opportunity to subscribe to the capital stock of petitioner, and twenty-

PUBLIC UTILITIES FORTNIGHTLY

seven of them have so subscribed. Thus the waterworks, although it would be owned and operated by a private corporation, nevertheless would continue, for a time, at least, much in the nature of a co-operative or community enterprise.

We nevertheless are constrained to withhold our approval of the applications, for two reasons, primarily because the sale of a public waterworks to a private corporation would be contrary to our policy; and

secondly, because petitioner, a private corporation, by acquiring the waterworks without paying for the WPA labor component of the cost thereof, would obtain the benefit of the expenditure of public moneys on a public project, and might later attempt to capitalize such expenditure upon a reproduction cost theory.

Re Dry Run Water Co. (Application Docket No. 34029).



Railway Authorized to Execute Agreement for Equipment Trust

WHERE title to cars is transferred by a railway company to a trust company which leases them to the railway company and issues equipment trust certificates, which the railway company guarantees, the equipment trust certificates, according to a decision of the California commission, do not constitute evidence of indebtedness of the railway company. However, as the latter under terms of agreements with the trust company becomes liable for the payment of the trust certificates as a guarantor and as lessee, the railway company should be authorized to execute such agreements under the provisions of the public utilities act.

The commission did not consider it necessary to file a registration statement with the Securities and Exchange Commission since the equipment trust certificates would be sold only to bona fide residents of California. Concerning registration, it was said:

While applicant through the filing of a registration statement could dispose of the certificates in a wider market and we believe at a lower interest rate, the cost of preparing and filing a registration statement might offset any saving in annual interest charges.

Re Los Angeles Railway Corp. (Decision No. 29586, Application No. 21030).



Other Important Rulings

A FEDERAL three-judge court sitting at New Orleans, La., on April 27th dissolved an injunction previously decreed (15 P.U.R. (N.S.) 482) upon suit by the Southern Bell Telephone & Telegraph Co. to restrain enforcement of a state law (Act No. 20, Sp. 1934) which assessed Louisiana utilities for the expense of their regulation. The Federal court in an opinion by Judge Borah held that a subsequent decision of the Louisiana Supreme Court in Public Service Commission *v.* Gremillion, 172 So. 163 had so interpreted the act that there was

no remaining doubt as to its constitutionality. The act had originally been attacked as discriminatory, unduly punitive, and as denying reasonable appellate relief. *Southern Bell Telephone & Telegraph Co. v. La. Pub. Ser. Com.*

The Missouri commission, in considering complaints against rates and service of an electric utility company, gave no consideration to the question of whether the utility had or had not a franchise granted by the city where it served. *Steelville v. Missouri General Utilities Co.*

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

PREPRINTED FROM

Public Utilities Reports

COMPRISING THE DECISIONS, ORDERS, AND
RECOMMENDATIONS OF COURTS AND COMMISSIONS

VOLUME 17 P.U.R.(N.S.)

NUMBER 5

Points of Special Interest

SUBJECT	PAGE
Depreciation of natural gas leaseholds and rights	433
Expense of developing gas leaseholds	433
Substitute basis for cost of gas supply	433
Experience basis for telephone depreciation	458
Excessive reserve for depreciation	458
Uniform accounting for interstate telephone companies	460
Segregation for rate making when utilities are merged	462
Service denial for meter tampering	465
Abandonment of rural electric service	469
Sale of securities to affiliates	473
Validity of assessment for supervision and regulation	475
Use of weekly pass on rapid transit line	489
Common carrier status of air carrier	492

Q These reports are published annually in five bound volumes, with an Annual Digest. The volumes are \$6.00 each; the Annual Digest \$5.00. A year's subscription to PUBLIC UTILITIES FORTNIGHTLY, when taken in combination with a subscription to the Reports, is \$10.00.

Titles and Index

TITLES

Bishop, Re	(Mich.) 492
Conestoga Co., Re	(Pa.) 462
East Ohio Gas Co., Re	(Ohio) 433
Great Northern R. Co. v. Washington	(U. S. Sup. Ct.) 475
Milwaukee Electric R. & Light Co., Eckman v.	(Wis.) 489
Missouri Power & Light Co., Re	(Mo.) 469
Northwestern Bell Teleph. Co., Re	(Neb.) 458
Pennsylvania Gas & E. Co., Re	(Pa.) 473
Philadelphia Electric Co., Keller v.	(Pa.) 465
Uniform System of Accounts for Telephone Utilities, Re	(Mich.) 460



INDEX

Accounting, interstate telephone companies, 460; uniform systems, 460.	Discrimination, rapid transit fares, 489.
Air carriers, as common carriers, 492; Commission jurisdiction, 492.	Expenses, cost of gas supply, 433; developing gas leaseholds, 433; income tax, 433; payments to affiliated company, 433; rate case expense, 433; state excise tax, 433; stock plan deposits, 433.
Appeal and review, review by Supreme Court of state court decisions, 475.	Intercorporate relations, sale of securities, 473.
Commissions, assessment of supervision and regulation costs, 475.	Payment, penalty for slow payment, 433.
Consolidation, merger, and sale, affiliated interests, 462; condition as to return on purchase price, 462; segregation for rate making as condition, 462.	Procedure, effect of former holding, 433.
Constitutional law, assessment of supervision and regulation costs, 475; state power to regulate, 475.	Public utilities, status of air carrier, 492; what constitutes common carrier, 492.
Corporations, incorporation of air carrier, and Commission approval, 492.	Rates, adherence to, 469; charge for setting meters, 433; cost of service, 469; rural electric, 469; use of weekly pass on rapid transit line, 489.
Depreciation, allowance for accrued depreciation, 458; excessive reserve, 458; experience basis, 458; natural gas property, 433; telephone property, 458.	Return, natural gas utility, 433.
Service, abandonment, 469; denial for meter tampering, 465.	Valuation, accrued depreciation, 433; going value, 433; reproduction cost and original cost as factors, 433.



RE THE EAST OHIO GAS CO.

OHIO PUBLIC UTILITIES COMMISSION

Re East Ohio Gas Company

[No. 8276.]

Valuation, § 105 — Accrued depreciation — Operated leaseholds and natural gas rights — Rock pressure method.

1. Depreciation of purchased operated leaseholds and natural gas rights was based on decline in rock pressure in accordance with an agreement between the parties, p. 438.

Valuation, § 106 — Accrued depreciation — Natural gas pipes.

2. Accrued depreciation of natural gas pipes should not be determined either by using the ten deepest pits in an 18-inch section of exposed pipe or by the formula of the deepest pit in an 18-inch section of exposed pipe or the probable deepest pit in a 20-foot joint of pipe, p. 438.

Valuation, § 331 — Going value.

3. No allowance was made for going value, in determining the value of natural gas utility property, in view of the evidence produced, p. 440.

Depreciation, § 27 — Annual allowance — Effect of maintenance charges.

4. Determination of a proper allowance for depreciation by considering past experience, as to replacements of property over a period of years, and the deterioration of the property as of the date of the determination omits the inclusion of replacements made through maintenance charges in addition to replacements made through the reserve, p. 441.

Depreciation, § 26 — Annual allowance — Realized depreciation as basis.

5. A depreciation allowance based upon realized depreciation alone is not sufficient in the case of natural gas property which has not reached through cycles of replacements a condition where the property may be said to have "attained its gait" through replacements alone, p. 441.

Depreciation, § 66 — Natural gas property.

6. A proper annual allowance for depreciation of depreciable property, excluding leaseholds, natural gas rights, gas well construction, and gas well equipment, was held to be not in excess of 1.5 per cent of the present value of the depreciable property of a natural gas utility, including depreciable overheads properly chargeable thereto, p. 441.

Expenses, § 136 — Natural gas utility — Developing operated leaseholds.

7. Allowance must be made for development cost expenditures necessarily incurred to provide producing acreage of a natural gas utility, p. 443.

Expenses, § 136 — Natural gas utility — Developing operated leaseholds.

8. The amount allowed a natural gas utility for development cost expenditures necessarily incurred to provide producing acreage should be such a sum as will enable the company to develop annually additional supplies equal to the amount of annual gas withdrawals from its developed acreage as shown by its past experience, p. 443.

OHIO PUBLIC UTILITIES COMMISSION

Procedure, § 36 — Effect of former holding.

9. The Commission does not hesitate to depart from what it has done before if the departure is reasonable and based on facts in the record, p. 445.

Expenses, § 49.1 — Stock plan deposits.

10. An item of expense "stock plan deposits" was disapproved, although the Commission felt that there was much merit to the plan, p. 445.

Expenses, § 114 — Income tax.

11. An allowance for income tax expense based on net earnings in several rate statements at the Federal income tax rates for the respective years considered is in error to the extent that the Federal Income Tax Law permits certain deductions which are not taken into consideration in the method used in arriving at rates, p. 445.

Expenses, § 114 — Federal income tax — Actual payments.

12. Federal income taxes were allowed at the amount actually paid by a public utility, p. 445.

Expenses, § 109 — State excise tax.

13. An allowance for state excise taxes of a natural gas utility was fixed at the average excise tax rate for the years during which operating expense were considered, p. 446.

Return, § 101 — Natural gas utility.

14. A return of $6\frac{1}{2}$ per cent was held to be proper and reasonable for a natural gas utility, p. 446.

Evidence, § 19 — Facts in the record.

15. The Commission cannot reject relevant facts that the parties have put into the record and substitute other facts not in the record, p. 447.

Expenses, § 86 — Payments to affiliated company — Cost of natural gas.

16. The Commission, in determining the allowance to be made for natural gas purchased from an affiliated company, must consider the reproduction cost new less depreciation and operating revenues and expenses of the producing company, p. 447.

Expenses, § 92 — Rate case expense — Ordinance rates.

17. Rate case expenses were amortized over a 4-year period, or during the life of a rate ordinance, in a proceeding to test the validity of the ordinance rates, p. 450.

Expenses, § 39 — Cost of gas supply — Substitute basis.

18. The Commission, in determining the propriety of ordinance rates for natural gas, should not substitute for the cost of gas purchased a cost based upon the use of gas producing acreage around the city which, it is alleged by the city, would with further development produce a sufficient supply of gas so that it would be unnecessary to purchase gas elsewhere, p. 451.

Expenses, § 39 — Cost of gas purchased — Substitute basis.

19. The Commission, in determining the validity of ordinance rates for natural gas, should not use a substitute basis for the cost of gas purchased, making calculations upon the theory that there is a sufficient available supply of gas in the fields within the state without requiring the purchase of other gas from points outside the state by the producing company, since this plan is speculative and does not admit of an adequate supply of gas.

RE EAST OHIO GAS CO.

either for consumers in the city or elsewhere in the producing company's system for peak day demands, p. 451.

Expenses, § 39 — Cost of purchased gas — Substitute basis.

20. The Commission, in determining the reasonableness of ordinance rates for natural gas, where the utility purchases its natural gas supply, should not eliminate the production property of the supply company and substitute the price for gas at the well mouth paid by the supply company to independent producers in another state for purchased gas, when there are no facts in the record to justify an assumption that the supply company would be able to purchase from independent producers at all times, including peak day demands, enough gas to supply all its requirements, p. 451.

Valuation, § 30 — Rate base — Reproduction cost — Original or historical cost.

21. Original or historical cost evidence receives consideration in determining the accuracy and certainty of Commission findings in reproducing the property of utility companies new less depreciation, but the Commission is bound by the state law to follow the statutory formula, namely, reproduction new and depreciated, p. 452.

Payment, § 53 — Penalty for slow payment.

22. A natural gas utility was authorized to collect 3 cents additional per thousand cubic feet each month if the bills were not paid within ten days after date of maturity, p. 452.

Rates, § 307 — Charge for setting meters.

23. No charge was allowed a natural gas utility for setting meters where the revenues provided through the rates fixed by the Commission were deemed adequate and the charge for setting meters was not contained in an earlier rate ordinance and had never been put into effect in the city, p. 453.

(WILLIAMS, Commissioner, concurs; SCHABER, Commissioner, dissents.)

[February 1, 1937.]

COMPLAINT and appeal of a natural gas utility as to an initiated ordinance passed by a city regulating rates and prices for natural gas; ordinance rates held to be inadequate and rates established. See also, 4 P.U.R.(N.S.) 433.

By the COMMISSION: This complaint and appeal is filed with this Commission by the East Ohio Gas Company, a public utility serving natural gas to consumers in the city of Akron, Ohio, as well as other places, from an initiated rate ordinance voted up at the election on the 8th day of November, 1932, but noneffective until May 19, 1933. A copy of this ordinance is attached to the aforesaid complaint and appeal.

The company did not accept the ini-

tiated ordinance but elected to collect the rate formerly in effect, furnished bond, and has since been collecting that rate.

It may be well to note the recent history of rates in Akron.

On the 29th day of November, 1930, a rate ordinance was passed and accepted which provided for the following net rates:

First 300 cu. ft., or less, or none—83¢ per month.

Next 4,700 cu. ft.—55¢ per M cu. ft.

All over 5,000 cu. ft.—60¢ per M cu. ft.

17 P.U.R.(N.S.)

OHIO PUBLIC UTILITIES COMMISSION

The average rate produced by this rate schedule was 69.84 cents per thousand cubic feet.

Prior to the expiration of the aforesaid ordinance, the company and the city agreed upon a new ordinance fixing rates which was passed May 17th, 1932. The rates in this ordinance are as follows:

First 300 cu. ft., or less, or none—83¢ per month.

All over 300 cu. ft.—50¢ per M cu. ft.

This rate is the present collected rate and if it had been effective in 1932, would have produced a little more than 64 cents and in 1933 a little less than 65 cents per thousand cubic feet. This last ordinance, *i. e.*, the one of May 17, 1932, did not expire by its terms until June 30, 1936, although either party was given the right to terminate it upon six months' written notice.

Thereafter, on the 8th day of November, 1932, the electors of the city passed an initiated ordinance which directed the giving of six months' notice of termination and likewise passed the initiated ordinance herein appealed from, which is a 4-year ordinance effective May 19, 1933, and expiring May 19, 1937, providing the following net rates:

First 1,000 cu. ft., or less, or none—63¢ per month.

All over 1,000 cu. ft.—45¢ per M cu. ft.

This ordinance, among other things, provided a charge for setting meters of \$1 per meter. It also increased the penalty for nonpayment of bills from 3 to 5 cents per thousand cubic feet.

The complaint and appeal as filed challenges the reasonableness of the ordinance rates on the ground that the

same are unlawful, unjust, unreasonable, and insufficient, as well as some of its other provisions. The parties have, by agreement, fixed the date certain as of December 31, 1932.

For purposes of brevity, the East Ohio Gas Company will hereinafter be denominated East Ohio; the Hope Natural Gas Company of West Virginia, Hope Company; the city of Akron, Ohio, the city, and the Public Utilities Commission of Ohio, and the Commission.

The Commission, in determining the aforesaid complaint and appeal, is required to proceed in keeping with the provisions of §§ 614-44, -45 and -46 inclusive, and § 499-9 of the General Code of Ohio.

After the filing of the aforesaid complaint and appeal, the Commission by order directed the parties to prepare it for presentation to the Commission. This was done. Likewise, the parties prepared the evidence pursuant to the new code of procedure adopted by the Commission effective March 1, 1934.

While the complaint and appeal herein is filed by East Ohio asking for a review of the ordinance in question, its consideration involves a related company, namely, the Hope Natural Gas Company of West Virginia. The common stock of these two companies, East Ohio and Hope, except qualifying shares, are owned and held by the parent company, The Standard Oil Company of New Jersey. It is unnecessary to dwell further, particularly at this point, upon the history of these two companies other than to say that both are well-established operating companies.

As already stated, the parties were

RE EAST OHIO GAS CO.

ordered to prepare the case for presentation to the Commission. Both the company and the city employed capable and experienced engineers, geologists, and accountants, men of eminent professional and business reputation. The company was represented by Ford, Bacon and Davis, Inc., engineers of New York city. The work was in charge of and under the direction of Mr. Edgar G. Hill who, with capable assistants, prepared the company's inventory and appraised the property of both companies. The city was represented by Mr. E. B. Black, engineer, Kansas City, Missouri, Mr. L. R. Howson, engineer, Chicago, Illinois, and Clinton H. Montgomery, accountant, Kansas City, Missouri. These gentlemen had under their direction and control able assistants in the preparation and presentation of the city's evidence.

It should be noted at this point that the engineers of the Commission co-operated in engineering studies with the engineers of the parties for the preparation and presentation of the evidence in the case.

The engineers for the parties spent much time in engineering study, examination, and inspection of the property of the two companies; likewise the accountants for the parties made an exhaustive and detailed study and analysis of the operating expenses of the two companies. As a result, the engineers and accountants were able to agree and did agree upon matters necessary for determination in a formal rate case proceeding. These agreements are set forth in what is denominated in this record as Company Exhibit No. 1 which is in reality a joint company and city exhibit, re-

flecting agreements with respect to the valuation of the property of the two companies. Likewise, what is denominated in this record as Company Exhibits Nos. 2 and 3, but which are in reality joint company and city exhibits, reflect the agreements reached by the accountants with respect to operating expenses and revenues of the two companies. The extent to which the engineers and accountants were able to agree upon the valuation of the companies' property, both new and depreciated, as of the date certain is set forth upon tables facing page 4 of the company's opening brief in this case. The extent to which the accountants were able to agree upon the operating expenses of the companies is set forth on pages 93 and 94 of the company's opening brief.

The Commission accepts these agreements of the engineers and accountants as binding upon it in considering this case. Our problem is the adjustment of the differences existing between the parties and upon which the engineers and accountants were unable to agree. Manifestly, this is our task and we turn to these differences, both as to rate base and operating expense.

Rate Base

We will first consider East Ohio and Hope last. We turn now to Accounts 205 and 207, Operated Leaseholds and Operated Natural Gas Rights, upon which there is no agreement either reproduction new or depreciated.

The company, in this case, does not claim market value for its operated leaseholds and natural gas rights, but uses book costs, included in which is

OHIO PUBLIC UTILITIES COMMISSION

the price paid for developed operated acreage purchased by it and book costs of acreage developed by it. The total book costs for all of such acreage, East Ohio Exhibit No. 14, page 3, is \$2,937,904, of which \$2,810,703 represents the purchase price of operated leaseholds purchased from S. J. Brendel, Penn-Ohio Gas Company and Stoltz Oil and Gas Company. The city, in valuing the property of these two accounts, uses what it calls "Adjusted Book Costs" as shown in City Exhibit No. 15, pages 4 and 5. These figures correspond with the figures of the company except that the city includes an additional item of \$151,244 representing costs which it concedes should be allowed.

With these facts, the Commission is of the opinion, and for reasons hereinafter more fully set forth, with respect to depletion of wasting assets and an annual allowance therefor, that for the adjustment of the differences between the parties, the company's book cost figures should be accepted, with this difference,—we are eliminating from the total figure for book costs new the sum of \$354,607 representing the cost of gas well construction which should be and is charged to Account 211.

The price paid by East Ohio for purchased operated leaseholds and natural gas rights need not be discussed here. The propriety of this purchase was fully considered by the Commission in the East Ohio Cleveland Case and the same is hereby reapproved.

[1] In depreciating book costs new of the property of the company, we have used the method agreed to by the parties and used by them, namely, a depreciation based on the decline in rock

pressure. With the application of this method to the facts, we find the present depreciated value of the property of these two accounts to be \$1,986,263.

[2] The parties have agreed upon reproduction cost new of the property in Accounts 213, 214, and 226 [Field Line Construction, Field Line Equipment, and Transmission Line Equipment], but do not accord on the present value of the property in these accounts. Their failure to agree arises from the fact that each uses a different method for determining accrued depreciation. The company uses as evidence of accrued depreciation, among other things, the ten deepest pits in an 18-inch section of exposed pipe. The city uses the formula of the deepest pit in an 18-inch section of exposed pipe or the probable deepest pit in a 20-foot joint of pipe.

The plan for determining accrued depreciation was agreed to, at least as it pertained to the buried property of the company. The parties, including the Commission and their engineers, thus inspected the property. Field and transmission line locations for inspection in the amount of 2,250 and distribution and service line locations for inspection in the amount of 350 were agreed upon and inspections actually made. The number of inspections for the various kinds and sizes of pipe was determined upon the basis of approximately \$20,000 of value for each inspection. At each of these locations where the pipe was exposed for inspection, a space about 18 inches in length was cleaned of rust and scale, the vertical and horizontal diameter of pipe measured, type of soil and scale noted, and measurement of ten deepest pits made plus other con-

RE EAST OHIO GAS CO.

ditions sufficiently important to influence the conclusions arrived at. Separate inspections and records at each location were made by the engineers for city, company, and Commission. These conclusions are set forth in Company Exhibits Nos. 8, 9, and 10.

The foregoing briefly describes the method by which accrued depreciation of pipe was determined. The city does not fully agree to this and asks the Commission to consider its theories of determining accrued depreciation by the use of the deepest pit in an 18-inch section or the probable deepest pit in a 20-foot joint of pipe. Much testimony was offered by the city and much time taken by the company in examining the city's witnesses on this phase of the case. It should be remembered that the same theories for determining accrued depreciation were advanced by the city of Cleveland in the East Ohio Cleveland Case (4 P.U.R.(N.S.) 433) and, both were rejected by the Commission. We have no particular additional facts before us that would justify, much less require, that a different plan be used for determining accrued depreciation in this case and we, therefore, reject such theories.

In the East Ohio Cleveland Case, in determining accrued depreciation of property in these three accounts, the Commission used an average of company, city, and Commission engineers' findings as found and recorded by them. In this case, we have departed from what was done in that case by using the findings of the Commission's engineers which are set forth in Company Exhibit No. 9, page 2, Field Line Construction and Field Line

Equipment, and Company Exhibit No. 10, page 2, Transmission Line Equipment. The percentage of present condition for these Accounts 213 and 214 is 85.63 per cent, and for Account 226, 82.61 per cent.

No agreement was reached as to reproduction cost new of parts of Accounts 234 and 235, Distribution Line Equipment and Service Line Equipment, relating to labor costs of installation. The items in Account 234 upon which there is no agreement are direct labor costs, top account costs, performance bond, and contractor's fee. The company's claim for these items is \$2,160,909; the city's \$1,694,701, a difference of \$466,208. The Commission must determine whether or not the company's claim is too high and if so how much and whether the city's claim is too low and if so how much. In our adjustments we have given careful consideration to each item of labor cost and with the experience we have had in adjusting such matters heretofore, we believe that the total of estimates of these items of labor cost as claimed by the parties is incorrect. We, therefore, substitute our judgment as to a correct figure for these items in the amount of \$1,908,198, which, when added to the agreed-to material and paving costs, makes a total reproduction cost new of \$3,349,163 for Account 234.

In Account 235 the items upon which there is no agreement by the parties are direct labor costs, top account costs, performance bond, and contractor's fee. In this account, the company's claim for these items is \$543,568, the city's \$327,771, a difference of \$215,797. We have adjusted these items as we did in Ac-

OHIO PUBLIC UTILITIES COMMISSION

count 234 and find that our adjusted figure, \$412,548, is a proper allowance which, when added to the agreed-to material and paving costs, makes a total reproduction cost new of \$627,- 531.

We are attaching hereto and making the same a part of this finding of facts Tables A and B which explain the various items and the finding of the Commission on each.

Having made these adjustments, we must depreciate all the property in these two accounts and we use the per cent condition found by the engineers for the Commission in doing so which is 82.29 per cent for Account 234 and 86.88 per cent for Account 235, as shown in Company Exhibit No. 8 page 24 and page 36, respectively.

In concluding our valuation of the company's property as of the date certain, we have added an allowance for general overheads in percentages agreed to by the parties, also working capital, in the amount of \$159,000.

[3] The Commission in the East Ohio Cleveland Case rejected the company's claim for going concern value. The parties in this case have introduced in part the testimony in that case supplemented with additional testimony here. It is upon this that the company rests its claim. The Commission is of the view that, since going concern value was not allowed in the East Ohio Cleveland Case, and for the further reason that the evidence here is substantially the same as it was in that case, the company's claim for such allowance of this intangible element of value should be disallowed which is accordingly done.

The Commission thus having considered and adjusted all matters in

controversy and not agreed to both as to reproduction cost new and depreciated, and upon adjustment of differences finds the reproduction value new to be, as of the date certain and after allocation to Akron, \$7,970,948, and depreciated, \$6,572,708.

We are attaching hereto and making the same a part of this finding of facts Table C which sets forth, for rate base purposes, the value of the property of East Ohio reproduction cost new and depreciated.

Annual Operating Expenses— East Ohio

Having established a rate base for East Ohio both before and after allocation to Akron, the Commission will consider next the annual operating expenses of the company. These expenses for reference purposes have been set forth in tabulated form in company's opening brief page 93, detailing expenses agreed to, expenses not agreed to but undisputed, and expenses not agreed to at all. It will be observed that in this tabulation the expense is an average expense for the years 1931, 1932, and 1933. The Commission will, however, in its adjustment of these expenses take into account the average operating expense for the years 1932, 1933, and 1934 as more nearly representing correct figures.

It would seem since the total difference in dollars between the parties for operating expense is only \$233,612 that the adjustment thereof would not admit of much dispute but unhappily this is not the case. These disputed expenses involve principally the annual depreciation allowance and a fixing of an allowance for depletion of lease-

RE EAST OHIO GAS CO.

both
1 de-
value
and
948,
mak-
g for
the
tion

for
allo-
will
ex-
ex-
ave
in
de-
uses
ex-
be
the
The
ad-
to
use
as
ig-
fies
12
not
ily
ed
al
e-

holds and the replenishment of wasting assets.

Expenses not agreed to but undisputed consist of three items,—production system expense, cost of drilling dry holes, and the annual allowance for depletion of wells. There is no difference between the parties as to the amount here involved but non-agreement comes from the fact if the city agreed to these items of expense, it would be inconsistent with its theory of the so-called Akron Gas Field which will be referred to later on in this finding of facts. The Commission finds that these items of expense totaling \$52,901 are proper and are accordingly allowed.

We are attaching hereto and making the same a part of this finding of facts Table E showing the calculations of an allowance for depletion of gas well construction and gas well equipment. [Table omitted.]

East Ohio, in Exhibit 15, pages 89 and 96 inclusive, submits as a fair annual depreciation allowance in per cent of depreciable property the development of a percentage factor which when applied to the book cost of depreciable property will provide a sum of money sufficient to cover what it terms realized depreciation, *i. e.*, retirements of property charged against the depreciation reserve and in addition thereto an amount equal to the accrued depreciation found in the rate base in percentage. Separate percentage factors are developed for the various functional groups of production, transmission, distribution, and general property in a study covering the years 1898 to 1932 and from this study a weighted average per cent is found and which is to be applied to all classes

of depreciable property. Percentages of reproduction cost new and present value are also developed. The city submits what it believes to be a fair annual allowance for depreciation upon the basis of percentages used by the Commission in the East Ohio Cleveland Case for the several classes of property and applies these percentages to the several rate bases presented by the city in this case.

[4-6] The company contends that the method followed by it in arriving at an allowance for depreciation takes into consideration its past experience, as to replacements of property over a period of years and the deterioration of the property as of the date certain produces a result that is consistent with the accrued depreciation in the rate base, and that adequate reserves would thus be provided if these percentages were used to date. This, the company claims, is in accordance with the findings of the Supreme Court of the United States as what constitutes a fair and reasonable allowance for depreciation.

The city of Akron claims that an allowance equal to the realized depreciation based on the past experience of the company is sufficient to maintain the property indefinitely in as good a per cent condition as that found in the rate base as of the date certain and that such allowance meets all of the requirements found necessary by the Supreme Court of the United States. The city further claims that its allowances are liberal and exceed all realized depreciation.

The Commission, in considering the company claims, is impressed with the fact that its methods do not include replacements made through

OHIO PUBLIC UTILITIES COMMISSION

maintenance charges in addition to replacements made through the reserve. It should be remembered in determining this item of expense, the Commission is considering the operating expenses of the company for the years 1932, 1933, and 1934, including replacements charged to maintenance during those years. During the years 1898 to 1932 the record shows that there were certain replacements of property through maintenance in addition to charges made for replacements against reserve. If, during this period, there was a change in the proportion of replacements charged to maintenance as distinguished from those charged to reserve, the conclusion arrived at would be different, than if the same proportion of maintenance to reserve replacements had been constant throughout the entire period. The proportion of replacements through maintenance varies in accordance with the policy of each company. This is apparent when we consider that the company method produces a composite percentage allowance for East Ohio of 2.20 per cent of reproduction cost new and a composite of 1.41 per cent of reproduction cost new for Hope Company (East Ohio Exhibit No. 15, pages 90 and 109).

The property of East Ohio includes large quantities of cast iron pipe and has in the aggregate a greater life expectancy than the property of Hope. Notwithstanding, the method used produces a higher annual allowance in per cent for East Ohio than for Hope. The reason therefor is that over a period of years Hope has replaced a larger proportion of property through maintenance as a study of the realized

depreciation of the two companies will show.

The depreciation plan submitted by East Ohio assumes a close relationship between accrued depreciation and the balance in the reserve as of any date. A study of the wide variation from year to year of the charges to the reserve lead us to the conclusion that such a relation would be impossible to maintain without great variation in the percentage of charges for depreciation from year to year.

Again, the city asserts that a depreciation allowance based upon realized depreciation alone is sufficient to maintain the property in its present state of efficiency and physical condition. With this view, the Commission cannot agree. There is no evidence in the case indicative of the fact that the property of East Ohio used in furnishing natural gas service to the city has reached through cycles of replacements a condition where the property may be said to have "attained its gait" through replacements alone. In other words, that annual deterioration from now on, it is expected, will not be in excess of replacements necessary for realized depreciation. A study of the realized depreciation in the record of the case negatives such assumption.

The Commission is of the opinion that an annual allowance for depreciation of depreciable property excluding leaseholds, natural gas rights, gas well construction, and gas well equipment, should be an amount not in excess of 1.5 per cent of the present value of the depreciable property of East Ohio including depreciable overheads properly chargeable thereto.

We are attaching hereto and making the same a part of this finding of facts

RE EAST OHIO GAS CO.

Table D descriptive of the method used in arriving at the total amount of depreciable property of East Ohio for each of the years 1932, 1933, and 1934 and the annual depreciation allowances thereon. [Table omitted.]

The next item of expense is depletion of leaseholds and the replenishing of wasting assets. East Ohio and the city have agreed upon a basis for computing an annual allowance for the restoration of leaseholds and natural gas rights in the rate base. This basis is the ratio of annual withdrawals of gas to the total agreed-to amount of gas underlying these leaseholds and natural gas rights. The application of the above basis by the parties is not the same. The company computes the depletion allowance on purchased operated leaseholds separately from the allowance on leaseholds developed by it. In the rate base, the company has included undrilled operated leaseholds and in computing a depletion allowance it takes into account the estimated amount of gas in both drilled and undrilled acreage.

The city, on the other hand, combines purchased and developed operated acreage in computing its depletion allowance and not having included, as depreciable property, undrilled operated acreage, therefore, it does not include the estimated amount of gas under the undrilled operated acreage in making its calculation.

[7, 8] In addition to the amount provided by this plan, the company claims an additional allowance to reimburse it for what it calls "Expenditures Necessarily Incurred in Developing Operated Leaseholds." The rate base, as it has been developed, includes only first costs of acquisition of op-

erated leaseholds and natural gas rights depreciated on a decline in rock pressure basis.

In East Ohio Exhibit No. 20, page 12, the company shows that during the years 1921 to 1933, it paid delay rentals on unoperated acreage annually, an average of \$449,743 and that during this period the average annual loss representing the first cost of acreage ultimately surrendered was \$84,599 or a total of \$534,342.

In East Ohio Exhibit No. 20, page 11, the company shows that from 1921 to 1933, inclusive, the number of unoperated acres carried under lease each year, the number of unoperated acres canceled, the number of productive wells developed, the number of dry holes drilled, and the estimated reserves of productive wells drilled each year. From this exhibit, these facts show that the average estimated gas supply developed year by year was 5,344,685 thousand cubic feet.

The annual withdrawals of gas from operated acreage developed by the company average approximately 3,000,000 thousand cubic feet which is about 57 per cent of the average estimated additional supply of 5,344,685 thousand cubic feet developed during each of the years from 1921 to 1933.

The application of this percentage to the total average annual amount expended for delay rentals and first cost of unoperated acres ultimately canceled, \$534,342 produces approximately \$304,000. East Ohio, upon the basis of its experience for the years 1921 to 1933, maintains that this amount \$304,000 is an accurate statement of the average cost to the company in delay rentals and first costs of

OHIO PUBLIC UTILITIES COMMISSION

unoperated acres ultimately surrendered to develop additional reserve acreage sufficient to supply additional gas to the extent of not less than 3,000,000 thousand cubic feet.

East Ohio further claims that gas exploration in the future will undoubtedly be more difficult and expensive and that the annual estimate of \$304,000 based upon its past experience as set forth in its Exhibit No. 20 in the record of this case should be revised upward to \$360,000 per year and asks that such increase be considered in fixing the rates for Akron.

The city claims that inasmuch as its valuation of leaseholds, in arriving at a rate base, includes delay rentals paid on acreage which ultimately become productive together with interest thereon and that its depletion allowance returns to the company these amounts in addition to the original cost of acquiring these operated leaseholds and that this method returns to the company everything to which it is entitled and rests its claim upon the decision of the Supreme Court of the United States in the Dayton (292 U. S. 290, 78 L. ed. 1267, 3 P.U.R. (N.S.) 279, 54 S. Ct. 647) and Columbus Cases (292 U. S. 398, 78 L. ed. 1327, 4 P.U.R. (N.S.) 152, 54 S. Ct. 763, 91 A.L.R. 1403) referred to in its brief.

However, as we think, a study of the Dayton and Columbus Cases shows that there was included for operated leaseholds of the Ohio Fuel Gas Company, in arriving at a rate base, reproduction costs new of \$25 per acre and depreciated 58.1126 per cent on a decline in rock pressure basis. As a result of such calculation, a reproduction cost new

of \$7,284,900 was established and after depreciation a present value of \$3,051,455. The book value of all leaseholds of the Ohio Fuel Gas Company (Dayton and Columbus Cases) including unoperated acreage, was not in excess of \$4,730,444 after eliminating an arbitrary write-up. Therefore, it was clear that the \$25 per acre valuation of the operated acreage was sufficient to include book costs of all acreage with an allowance for delay rentals and interest thereon.

We shall not undertake to discuss here the propriety of including in the rate base the leaseholds at a value that reflects the cost of bringing such acreage into production as against the inclusion of such costs as an operating expense. It is obvious that the city's plan in dealing with this subject returns to the company only those costs incurred on acreage that ultimately prove to be productive.

East Ohio claims, as set forth in its Exhibit No. 20, that it cannot obtain producing wells on every leasehold. This statement obviously is true. In order to obtain additional supplies of gas, East Ohio, in order to maintain adequate gas reserves, must continually promote gas reserve exploration which involves the leasing of much undeveloped acreage and the payment of delay rentals thereon until surrendered if they prove unproductive or if it so elects it may purchase leaseholds which have been proven to be productive without engaging in the development thereof itself.

Upon consideration of the facts in this case, we conclude, in determining what a fair rate for the furnishing of natural gas service to Akron shall be,

RE EAST OHIO GAS CO.

that an allowance must be made for development costs for expenditures necessarily incurred to provide producing acreage.

We are confronted then with the question, what is a reasonable allowance for such costs? To allow East Ohio whatever amounts are expended for such purposes, regardless of its development activities, would be to encourage the acquiring and holding of acreage for improper purposes and to stifle fair competition. If it can be determined correctly, the amount allowed then should be such sum as will enable East Ohio to develop annually additional supplies equal to the amount of annual gas withdrawals from its developed acreage.

We think it is sufficient to accept the experience of East Ohio in years past as to the cost of developing such additional gas supply and that this is a fair measure of its actual cost. We, therefore, find that the amount of \$304,000 annually for the purpose of "Expenditures Necessarily Incurred in Developing Operated Leaseholds" is proper and reasonable and is accordingly allowed which, after allocation to Akron, amounts to an average of \$26,590 for each of the years 1932, 1933, and 1934 on a gas sales basis.

[9] If it be said that this method is a departure from what has been done before by this Commission, we admit this would be true. If the departure is reasonable and based on facts in the record, and we think they are present here, then we do not hesitate to make the departure.

We are attaching hereto and making the same a part of this finding of facts Table F which sets forth the calculations and facts with respect to the

annual allowance for depletion and the replenishing of wasting leasehold assets. [Table omitted.]

[10] The Commission in the East Ohio Cleveland Case rejected the item of expense "Stock Plan Deposits." While we feel there is much merit to the plan, nevertheless upon consideration of the facts in this case, which are not unlike the facts in the East Ohio Cleveland Case, we do not approve its allowance.

[11, 12] East Ohio asks that it be allowed as an item of expense income tax based on net earnings in the several rate statements at the Federal income tax rates for the respective years. The city contends that the actual taxes paid are the amounts properly includable for this item of expense. The Federal Income Tax Law permits certain deductions which are not taken into consideration in the method used in arriving at rates in the instant case. To this extent, we think the method of the company is in error. Prior to the year 1934, East Ohio made a consolidated report for income tax purposes cojointly with affiliated companies. If we are to assume for purposes of rate determination the extent to which the individual company contributes to the aggregate of the income tax in a consolidated income tax statement should be the measure of the proper amount of such tax, the city's method of taking actual taxes paid might be erroneous if the income taxes are not prorated among the affiliated companies on this basis. Of the two methods, the one used by the city, we think, should be adopted here. We are, therefore, including in this finding of facts for Federal income taxes the actual amounts paid by East Ohio al-

OHIO PUBLIC UTILITIES COMMISSION

located to Akron on the proportion of its net income as is set forth in City's Exhibit No. 30, Table 26.

[13] The next item of expense is Ohio excise tax. The parties are in agreement as to the average excise tax rate for the years 1932, 1933, and 1934. East Ohio contends that although the average excise tax rate for these years was 2.26 per cent and since the ordinance period is from May 19, 1933, to May 19, 1937, the average rate for this period, 2.96 per cent, should be applied to revenues considered. The city contends that actual excise taxes assignable to the respective years should be used. Economic conditions have shown improvements since December 31, 1934, and it may be assumed, therefore, that wages and other costs of operations will probably be higher for that portion of the ordinance period not considered here. For example, the Social Security Act, a new Federal law, will impose, we know, additional expense during 1936 and 1937.

On the other hand, this improvement in economic conditions may also result in increased sales for the company with resulting gains that more than offset the increased expenses of operation.

The Commission, having considered this matter fully, is of the opinion that a proper allowance for excise taxes is an amount computed at the respective average excise tax rates for the years considered which we find to be 2.26 per cent.

[14] We will consider rate of return as an item of operating expense. What rate shall be allowed? There should be a basis for its allowance. We think the Supreme Court of the

United States in United R. & Electric Co. v. West, 280 U. S. 234, 74 L. ed. 390, P.U.R.1930A, 225, 229, 50 S. Ct. 123, has established such basis and we quote from the opinion of the case:

"It is manifest that just compensation for a utility requiring for efficient public service, skillful and prudent management, as well as use of the plant, and whose rates are subject to public regulation, is more than current interest on mere investment. Sound business management requires that after paying all expenses of operation, setting aside the necessary sums for depreciation, payment of interest and reasonable dividends, there should still remain something to be passed to the surplus account; and a rate of return which does not admit of that being done is not sufficient to assure confidence in the financial soundness of the utility to maintain its credit and enable it to raise money necessary for the proper discharge of its public duties."

We think the view of the court as expressed is sound and beyond challenge. In the light of our experience, and with knowledge of the nature of the enterprise at hand and the public responsibility attaching thereto, we are of the view that a proper and reasonable rate of return upon the rate base heretofore found for East Ohio in this case should be 6½ per cent.

Having fully considered the expenses not agreed to but undisputed and the expenses not agreed to at all, excepting only cost of purchased gas at the Ohio river and rate case expense, and upon the basis of our consideration and adjustment of the foregoing items of expense, we find that there will be provided from the ordi-

RE EAST OHIO GAS CO.

nance rates after deductions of the expense items allowed East Ohio 18.50 cents per thousand cubic feet for gas purchased by East Ohio from Hope at the Ohio river. We are attaching hereto and making the same a part of this finding of facts Table G which shows the detail in the computation of expenses and from which the finding is made that there is available the sum of 18.50 cents per thousand cubic feet for cost of purchased gas. [Table omitted.]

Amount Available for Purchased Gas

[15, 16] In the East Ohio Cleveland Case, the Commission found, after considering East Ohio alone, that there was available an amount of money on the basis of the ordinance rates with which to buy gas from Hope at the Ohio river at 37.1 cents per thousand cubic feet. The Commission did not, in the East Ohio Cleveland Case, fix a valuation of Hope's property or determine its revenues, operating expenses, or other elements of a rate or whether the contract price between the parties then in effect, 41.8 cents per thousand cubic feet, was too high and, if so, how much too high. The effect of what the Commission said, however, was that 37.1 cents per thousand cubic feet was an adequate allowance for East Ohio to pay Hope for purchased gas.

In this case, we cannot adopt or follow the plan used in the East Ohio Cleveland Case by saying that 18.50 cents per thousand cubic feet or any other sum less than the contract price, 38.5 cents per thousand cubic feet, is a sufficient and reasonable allowance for this item of expense. To do so

would obviously be erroneous and contrary to the facts.

This Commission must accept all relevant facts that the parties have put into the record of the case as having at least *prima facie* value. The Commission cannot reject them and substitute other facts not in the record or by using book costs that do not correctly reflect all the costs of the particular property in the case.

The Commission must, therefore, consider the Hope Company in the same way it considered East Ohio, namely, reproduction cost new less depreciation and a consideration of operating revenues and expenses as required by the law of our state. We will, however, for informative purposes, present one or more work-outs later on in this finding of facts, as urged by the city, eliminating all of the production property of the Hope Company in Accounts 205 and 207, and Accounts 211, 212, and 216, and all of the operating expenses attaching to this portion of the production property as not being used and useful and substitute therefor a price limit of 20 cents per thousand cubic feet for purchased gas at the well mouth to show whether or not the contract price between the parties at the river, 38½ cents per thousand cubic feet, is justifiable or excessive and, if excessive, how much.

Rate Base—Hope Company

As shown in East Ohio's opening brief in the table entitled "Hope Natural Gas Company" facing page 4, we find a summary of the differences between the parties with respect to reproduction cost new and depreciated of Hope's rate base. It is observed

OHIO PUBLIC UTILITIES COMMISSION

that the only difference between the parties as to reproduction cost new applies to Accounts 205 and 207, Operated Leaseholds and Operated Natural Gas Rights. The method used by the parties here is the same as was used in East Ohio, namely, book costs and adjusted book costs. Those methods have been fully discussed in our consideration of East Ohio. We do not deem it necessary to repeat this discussion here. We find, therefore, that the book cost new of operated leaseholds and operated natural gas rights to be as of the date certain, \$1,190,093, and depreciated \$493,770.

There has been no agreement as to the present value as of the date certain of the property in Accounts 213, 214, and 226, respectively. The per cent condition as found by the engineers for the Commission for Accounts 213 and 214, respectively, is for each account 83.11 per cent, and as set forth in Hope Company Exhibit No. 11, page 2; Account 226, Transmission Line Equipment, 85.11 per cent, as set forth in Hope Company Exhibit No. 12, page 2.

Applying the per cent condition as found by the engineers for the Commission to the agreed-to reproduction cost new of the property in Accounts 213 and 214, respectively, we find a present value of \$3,818,663 and \$7,237,810 for the two above accounts. Applying the per cent condition found by the engineers for the Commission to the agreed-to reproduction cost new of the property in Account 226, we find a present value of \$10,823,027.

We have then before us the question of applying the agreed-to general overheads to the present value of the property in all of the accounts of the

company's production, transmission, and general system property as well as agreed-to working capital, material, and supplies from which we find a present value of the used and useful property of the Hope Company after allocation to Akron, upon a sales basis, in the amount of \$2,708,286. The Commission has, in its treatment of Hope, considered going concern value but rejects the same for the reasons assigned in its discussion of the same subject in the case of East Ohio.

We are attaching hereto and making the same a part of this finding of facts Table H, pages 1 and 2, as a complete summary of the jointly used property of Hope Company both before and after allocation to Akron showing reproduction costs new and depreciated as of the date certain. [Table omitted.]

Annual Operating Expenses — Hope Company

The annual operating expenses for Hope, referred to in East Ohio's opening brief, page 94, sets forth a summary of the expenses agreed to, the expenses not agreed to but undisputed and the expenses not agreed to by the parties at all. This expense is an average for a 3-year period, 1931, 1932, and 1933. The Commission will consider the average expenses for a period covering the years 1932, 1933, and 1934. It is to be observed, because it is a matter of interest, that the total difference between the parties in operating expenses after allocation is \$38,060.

The first items of expense not agreed to but undisputed are, production system expense, exclusive of delay rentals, and cost of drilling dry

RE EAST OHIO GAS CO.

holes. There is no dollar difference between the parties, yet the amount is not agreed to because the city advances two substitute methods of operation for Hope Company, namely, an increase of its own production to 39,000,000 thousand cubic feet annually at 1922 costs and the purchase of all its gas at 20 cents at the well mouth in lieu of any production of its own. The Commission will include these items of expense at their stated amounts.

The annual allowance for the depreciation of the company's depreciable property, exclusive of wells and leaseholds, has not been agreed to by the parties. The Commission, upon consideration of an annual depreciation allowance for Hope Company, finds no cause to modify its views with respect to the same subject set forth in this finding of facts in dealing with the depreciable property of East Ohio. We, therefore, find that the application of 1.5 per cent to the present value of the company's depreciable property will provide a fair and reasonable annual depreciation allowance. We are attaching hereto and making the same a part of this finding of facts Table I which sets forth the calculation of the depreciation allowance. [Table omitted.]

On the next item of expense, depreciation of wells, the parties agreed on the method of calculating this allowance, namely, the proportion of annual withdrawals of gas to the agreed-to amount underlying drilled acreage. The company includes 4,000,000 thousand cubic feet for leakage whereas the city includes but 1,000,000 thousand cubic feet for leakage. In computing our allowance, we have includ-

ed 1,000,000 thousand cubic feet for leakage as claimed by the city. This difference in leakage is the only difference between the parties in this item of expense. We are attaching hereto and making the same a part of this finding of facts Table J which shows the calculation of annual allowance for depreciation of wells. [Table omitted.]

There is no agreement by the parties for a depletion of leaseholds and for replenishing wasting leasehold assets. The Commission, in considering the difference on this item of expense between the parties, uses the same method that it used in treating the same subject in the case of East Ohio. There is yet another difference between the parties here, but of minor importance, namely, gas leakage, the city claiming a figure of 1,000,000 thousand cubic feet and the company 4,000,000 thousand cubic feet annually. This difference in some respects modifies the conclusions of the parties as to this item of expense. The Commission in adjusting the differences between the parties as to this item of expense will use the lesser amount of leakage as claimed by the city.

Stock plan deposits as an item of expense is not allowed and for reasons assigned in discussing this same subject in East Ohio.

Payment of Federal income tax, as an item of expense, we find, should be included at the amounts actually paid by the company for these taxes. This item is fully discussed in East Ohio and we apply the same treatment here.

The Commission is of the view

17 P.U.R.(N.S.)

OHIO PUBLIC UTILITIES COMMISSION

that the rate of return to Hope, as of the date certain should be, as we found it in East Ohio,— $6\frac{1}{2}$ per cent. We are attaching hereto and making the same a part of this finding of facts Table K calculation of annual allowance for depletion—and replenishing of wasting assets. [Table omitted.]

Having fully considered and adjusted the operating expenses of Hope Company, by using its average expenses for a 3-year period, 1932, 1933, and 1934, we find a total average expense, exclusive of return, in the amount of \$563,373, which, deducted from the total average revenue arising from gas sales to East Ohio, at $38\frac{1}{2}$ cents per thousand cubic feet, allocated to Akron, \$662,118, leaves an available balance for return to Hope Company of \$98,745 or a return on the rate base of 3.72 per cent. We are attaching hereto and making the same a part of this finding of facts Table L a calculation showing earnings under revised contract rate of 38.5 cents per thousand cubic feet. [Table omitted.]

Upon the basis of these facts, the Commission finds that the contract price of $38\frac{1}{2}$ cents per thousand cubic feet between the parties is reasonable and fully sustained. We are attaching hereto and making the same a part of this finding of facts Table M, descriptive of what the contract price between the parties would be to provide a $6\frac{1}{2}$ per cent return to Hope or 42.82 cents per thousand cubic feet. [Table omitted.] A price of 42.82 cents per thousand cubic feet for Hope gas would produce an average retail rate of return for Akron of 64.70 cents per thousand cubic feet.

Cost of Service

Having fixed a valuation for East Ohio and Hope's properties and having determined operating revenues and operating expenses for both companies we find a total expense and return, exclusive of Hope gas, for East Ohio, in the amount of \$1,286,501. To this sum there must be added the sum of \$657,789 representing cost of Hope gas at 38.5 cents per thousand cubic feet on the basis of sales, allocated to Akron, making a total cost of service and return to East Ohio of \$1,944,290. From this, we deduct miscellaneous income in the amount of \$21,437, making a total cost of service and return, less other income, \$1,922,853.

[17] It is quite clear that the rates prescribed by the ordinance from which the complaint and appeal here was filed, are confiscatory of the company's property and do not yield to it a fair rate of return. The Commission must also include in the cost of service and return an allowance for rate case expense which amounts to the sum of \$119,342, East Ohio Exhibit No. 66. In order that this rate case expense may be evenly distributed, we direct that it be amortized over a 4-year period or during the life of the ordinance at the rate of \$29,836 per year which when added to the total cost of service and return as hereinbefore shown, makes a total net cost of service and return to East Ohio of \$1,952,689 per year. To obtain the average cost of gas per thousand cubic feet sold in Akron, it is necessary to divide the total net cost of service and return, \$1,952,689, by 3,131,987 thousand cubic feet (Akron

RE EAST OHIO GAS CO.

sales) which produces a cost per thousand cubic feet of gas sold in Akron of 62.35 cents.

We are attaching hereto and making the same a part of this finding of facts Table N which shows the average retail cost of service in Akron with Hope gas purchased at 38½ cents per thousand cubic feet. [Table omitted.]

City's Substitute Bases

Before concluding this finding of facts, reference is made to several plans offered by the city as substitute bases for the furnishing of gas to Akron by East Ohio.

[18] First, the Akron gas field. The city says that there is gas producing acreage with sufficient reserves around the city of Akron for and during the life of this ordinance which will, with further development, produce a sufficient supply of gas for the city's needs and that it will be unnecessary for East Ohio to purchase gas elsewhere. What the city urges the Commission to do is to substitute the so-called Akron gas field as a rate base for the city. With this view, we cannot accord, believing that the plan is entirely untenable and unfair not only to consumers of East Ohio in Akron, but to all of its consumers elsewhere. The city in Exhibit No. 30, Table 66-70, shows, in expense basis No. 5 Rate Base C, its conclusions as to total cost of gas per thousand cubic feet sold under this plan in the city of Akron.

[19] Second, the city in its Exhibit No. 30, Table 37, sets forth as a substitute basis the cost per thousand cubic feet of gas sold in Akron. These calculations rest upon the theory that there is a sufficient available supply of

gas in the Ohio fields without requiring the purchase of other gas from points outside Ohio. Under this plan, East Ohio is required to purchase gas, beyond its own production, at a price of approximately 18½ cents per thousand cubic feet at the well mouth. This plan is speculative and does not admit of an adequate supply of gas either for the consumers in Akron or elsewhere in East Ohio's system for peak-day demands.

[20] Third, the city asks the Commission to eliminate the production property of Hope, in Accounts 205, 207, 211, 212, and 216 [operated leaseholds, operated natural gas rights, gas well construction, gas well equipment, and drilling and cleaning equipment], which, if done, would make the property in these accounts not used and useful and, therefore, not a proper part of the rate base. The city further asks that for Hope production from its own property the amount of gas it sells to East Ohio annually, it substitute the price of 20 cents for such gas at the well mouth, this being the price paid by Hope to independent producers in West Virginia for purchased gas.

We are attaching hereto and making the same a part of this finding of facts Table O which shows a cost for Hope gas of 38.11 cents on the 20-cent cost at the well mouth basis. [Table omitted.]

The city's theory assumes that Hope would be able to purchase from independent producers in West Virginia at all times, including peak-day demands, enough gas to supply all its requirements. There are no facts in the record of this case which support such an assumption. See East Ohio

OHIO PUBLIC UTILITIES COMMISSION

Exhibit No. 55, pages 18 to 28, inclusive.

Fourth, City's Expense Basis 4, Rate Base A, as set forth in schedule 11 at page 427 of city's brief, contemplates that Hope will produce from its own wells annually 39,000,000 thousand cubic feet at production costs for the year 1922. We cannot accept these plans and each and all of them are rejected.

[21] Fifth, the city submits rate calculations for Hope gas and for retail rates in the city upon what it designates as original cost of Hope and East Ohio properties. The record in this case discloses that what the city submits as original costs is the company's book costs less write-ups which do not include costs which were charged to operating expenses, notably labor costs of drilling wells, prior to 1921. To the extent that these costs are charged to expense and not to property, the submitted book costs are deficient even as a measure of original cost in these calculations.

It must not be understood that the Commission has rejected original or historical cost evidence in this case nor is it unmindful of what the courts have said concerning the use of such evidence. This testimony has received consideration as an aid in determining the accuracy and certainty of our findings in reproducing the property of the companies new less depreciation. In other words, the Commission is bound by Ohio law to follow the statutory formula, namely, reproduction cost new and depreciated. The use of such evidence does not supplant the legislative formula, but may be considered by the Commission in arriving at its conclusion as to fair

and reasonable value to be ascribed for rate base purposes.

Form of Rate

Having determined all matters in controversy, we have before us the question, what is a proper rate? The company, in its exhibits and briefs, asks for an average of 72 cents per thousand cubic feet based on a valuation presented by its own witnesses, an 8 per cent rate of return and the allowance of operating expenses as claimed by it. We have not allowed the claims made by the company, but have considered them.

The average rate to which we find the company to be entitled is 62.35 cents per thousand cubic feet. This, in our judgment, would produce sufficient revenue to the company over the life of the ordinance to enable it to pay its reasonable operating expenses and to yield it a return of 6½ per cent upon a proper valuation of the property devoted to the service of Akron.

The parties appear to be satisfied with the present rate structure and we find that the following rate will yield the average revenue per thousand cubic feet:

For each consumer, and each place of consumption—

For the first 300 feet, or less, or none—70¢ per month.

For all over 300 feet per month—50¢ per M cu. ft.

[22] These are net rates and the company will be authorized to collect 3 cents additional for each thousand cubic feet, each month, if the bill is not paid within ten days after the date of the maturity established therefor. The ordinance under consideration provided a penalty of 5 cents per thousand cubic feet, but we find that in the

RE EAST OHIO GAS CO.

last ordinance accepted by the company, it was satisfied with a penalty of 3 cents per thousand cubic feet and this penalty is shown on its schedule not only in Akron, but in places elsewhere.

[23] The ordinance of which complaint is made also contains a provision for permitting the company to charge \$1 for setting meters. The revenues which we have provided through the rate fixed is deemed by us adequate and the charge for setting meters which was not contained in the May ordinance of 1932, has never been put into effect in Akron and it is, therefore, disallowed.

Since the collected rate during the pendency of this appeal was 83 cents per consumer at each place of consumption, each month, for the first 300 cubic feet, or less, or none, the only change in the rate is to reduce this to 70 cents per month. Therefore, each consumer will be entitled to a refund of 13 cents per month or a total refund to all consumers in the city as of January 1, 1937, of something more than \$300,000.

An order will be drawn in accordance with this finding of facts.

Commissioner Charles F. Schaber dissents.

WILLIAMS, Commissioner, concurring: I concur in the Commission's finding of facts and resultant order. I am not at all satisfied with the reasoning by which "going concern value" and cost of "stock plan deposits" were eliminated. I feel that a substantial sum has been proven in this case as the value of "going concern." I feel this should have been in the rate base. Money spent by the company in

its so-called "stock plan deposits" was clearly spent as salary and should have been allowed as expense. It is said that both such items were rejected in the so-called East Ohio-Cleveland Case, and to allow them in the instant case would discriminate against the users of gas in Akron during the life of this ordinance. I have no desire to create a condition whereby discrimination could be claimed. While this reasoning is quite logical, yet it is equally fallacious.

SCHABER, Commissioner, dissenting: The company has clearly established that the rate fixed by the ordinance is unjust and unreasonable and insufficient to yield reasonable compensation for the service rendered and to be rendered during the period of the ordinance, but I cannot agree with my colleagues, the majority Commissioners, to the rates by them fixed and substituted for the ordinance rate.

The rate so fixed is, in my opinion, too high, resulting in exacting from the Akron gas consumers more than the services rendered and to be rendered are reasonably worth. I take particular exceptions to the annual allowance for so-called costs incurred in restoring gas supply as part of the company's operating expenses, the price for Hope gas, and to the rate of return. I shall comment briefly upon each of them separately.

Annual allowance for so-called costs incurred in restoring gas supply.

The majority Commissioners have included in the expenses of the company an allowance for so-called expenditures incurred in developing leaseholds. This they designate "cost

OHIO PUBLIC UTILITIES COMMISSION

incurred in past" and fix the amount at \$304,000 per annum, allocating this additional expense to Akron for the year 1932—\$28,090; for 1933—\$25,992, and for 1934—\$25,688. This item is based on the amount of delay rentals paid in the past on unoperated acres and on investments in unoperated acres canceled, and is clearly an allowance for payments for delay rentals upon leases in reserve (leases not presently used or useful) many of which have been canceled, under a new name. These allowances include not only the cost of carrying presently unoperated acreage, but the cost of acquiring and carrying unoperated acres not even now owned by the company—they include costs for acreage which will never be used and useful in the service of gas consumers. It is nothing more than "old man delay rentals" on unoperated leases disguised in a new fantastic garb. Items of this character have been repeatedly rejected by this Commission in the past and such disallowances approved by the supreme court of this state as well as by the Supreme Court of the United States. *Logan Gas Co. v. Public Utilities Commission* (1929) 121 Ohio St. 507, P.U.R.1930B, 246, 169 N.E. 575; *Columbus Gas & Fuel Co. v. Public Utilities Commission*, 127 Ohio St. 109, P.U.R.1933D, 238, 187 N.E. 7; *Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission* (1934) 292 U.S. 398, 78 L.ed. 1327, 4 P.U.R.(N.S.) 152, 54 S.Ct. 763, 91 A.L.R. 1403. Such was also our holding in the Cleveland Rate Case decided in July, 1934 (4 P.U.R.(N.S.) 433).

It should be noted that this expense item is in addition to the allowance, 17 P.U.R.(N.S.)

out of current earnings, for depletion of the wasting assets of the company such as operated leaseholds, gas well construction, and gas well equipment, providing for a fund whereby new leases can be acquired. Applying the method used in the Cleveland rate case in finding the adjusted book cost or value of operated leaseholds and natural gas rights, which costs are to be returned to the company by annual allowances as part of operating expenses, the adjusted book cost of such leases and rights at December 31, 1932, should be \$2,734,541; the depreciated value thereof as of that date should be \$2,077,547. These sums allocated to Akron should be \$252,672 and \$191,965, respectively.

The action of the majority Commissioners in allowing such an item of expense is a marked departure from what was done by the Commission in the Cleveland rate case as well as placing an additional cost upon the ratepayer not heretofore sanctioned by Commission or court. Instead of having consistency in utility regulation it tends to uncertainty as well as to discrimination between the company's own customers.

What is said here will apply equally to a like allowance in the case of the Hope Natural Gas Company.

Price for Hope Company gas.

In the Cleveland rate case this Commission found 37.1 cents per thousand cubic feet a fair, reasonable, and sufficient price to be paid the Hope Natural Gas Company for the gas by it delivered to the East Ohio Gas Company at the Ohio river. At that time the contract between these companies provided for a price of 41.8 cents per

RE EAST OHIO GAS CO.

thousand cubic feet. In the presentation of that case the company contended that the real cost of such gas was from 50 cents to 53 cents per thousand cubic feet, but notwithstanding such claim, the companies, subsequent to the Cleveland gas decision, modified their contract by further reducing the price for gas. The Commission in that case said:

"It seems to the Commission that the Hope Company has so far departed from normal activities as a strictly producing company and so completely entered the field of a merchandising company that the value of its entire property used and useful for public service to such a limited extent, becomes no correct measure by which we may determine the cost to it of the purchase, production, and transportation of gas to the point of delivery to the East Ohio Company." (4 P.U.R. (N.S.) at p. 479.)

It was shown in that case that the Hope Company produced but 14.40 per cent of its gas requirements in 1930; 14.15 per cent in 1931, and 7.85 per cent in 1932. It appears from the record in this case that Hope produced only 12 per cent of its gas requirements in 1933 and 12.5 per cent in 1934. Its operations during the years involved in this case show no material change in its operations as disclosed in the Cleveland Case. In fact the company introduced substantially the same evidence respecting the Hope operations as introduced by it in the Cleveland Case and there is no evidence in this case entitled to any more weight than the evidence before the Commission in that case. It is evident the company is still departing from normal activities as a producing

company to the same extent as found in the Cleveland Case.

This Commission at that time also said: "While we have considered the value of the Hope property by the ordinary process of valuation, the company has offered no evidence that discloses how much it would cost the Hope to produce the gas sold by it to the East Ohio if it devoted itself solely to the production of gas."

The company has also failed to produce such evidence in this case.

The Hope is still selling gas to independent companies and to its domestic consumers in various towns in West Virginia at a price considerably below the price to East Ohio Gas Company. The price to independent companies being approximately 31½ cents and to domestic consumers delivered at the burner tips for less than 34 cents per thousand cubic feet.

What was said by the Commission in the Cleveland Case regarding the Hope properties, its operations, financial history, etc., is equally true in this case, and considering the record in this case in connection with what was announced in that case it is my opinion that 37.1 cents per thousand cubic feet is a fair and reasonable price to be allowed for Hope gas in this case; any sum in excess thereof is more than the service rendered in delivering the same to the East Ohio Gas Company is reasonably worth. The value of the service obtained from Hope is no greater in this case than was found to be in the Cleveland Case, and considering too that the consumers in Akron are receiving this service at the same time the Cleveland consumers are receiving a like service under the same or substantially the same

OHIO PUBLIC UTILITIES COMMISSION

circumstances and conditions, there should not be a different river rate.

Rate of return.

The true criterion by which a fair rate of return should be measured is stated and defined in Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission, 262 U. S. 679, 692, 67 L. ed. 1176, P.U.R. 1923D, 11, 20, 43 S. Ct. 675, as follows:

"A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally."

In applying these principles to this case various factors should be considered in determining what rate of return the company should earn. Present conditions are controlling; general business conditions and the utility's

need for new capital should be considered and the return should be such as will maintain the credit of the utility in the light of presently existing business conditions and opportunities for capital in other enterprises.

The business of the East Ohio Gas Company is on a solid foundation. It serves the most thickly populated portion of this state consisting of the city of Cleveland and its many suburbs, the cities of Akron, Canton, Massillon, Youngstown, Warren, New Philadelphia, Niles, Wooster, Barberton, and many other communities, aggregating in all at least sixty municipalities. Its record of growth and prosperity for more than twenty-five years and its position at the present time leads to the conclusion that the company is in a very secure position. It has not been and is not likely to be interfered with by competition of other natural gas companies throughout its entire field of operation and it has an assured natural gas supply extending into the indefinite future—this is doubly true because of its affiliate connection. The company offered as its own witness Mr. Francis E. Frothingham who testified as follows:

"The East Ohio Gas Company is doing business in one of the most populous and actively developed regions in the United States. It serves a group of cities which are recognized throughout the country as one of the country's best industrial centers. It, therefore, has the background of a connected business and service to ultimate consumers which should engender confidence in its position and stability."

The company is well financed and

RE EAST OHIO GAS CO.

has no funded debt. Its management is of a high grade of efficiency, its properties are well maintained (for which liberal expenditures have been allowed in the way of operating expenses), and there is no indication that it will be required to enter the public market for finances in the immediate future. What is here said regarding the management and financial position of the East Ohio Gas Company is equally true of the Hope Natural Gas Company.

The company's sound financial status and high standard of credit is further contributed to by reason of its affiliation with the Standard Oil Company (New Jersey) one of the largest and strongest corporations in the United States, which holds all the preferred and common stock of the East Ohio Gas Company as well as all of the stock of the Hope Natural Gas Company. The company witness Frothingham further testified—"This fact (Standard Oil Company control) insures the prospective investor of good management, consistency of managerial policy, the application of sound business practices, the best of engineering, accounting, and other technical ability," and "The standing of the parent company also assures the availability of financial aid in the event of unexpected developments."

We should consider also that money conditions prevailing during the period of the life of this ordinance were, and at the present time are, still more favorable to the borrower than they were in prior years and that many public utility loans are now being refinanced at materially reduced interest rates. Refunding of public utility loans running into hundreds of mil-

lions of dollars have been authorized by this Commission in recent years bearing interest rates from $3\frac{1}{2}$ to 4 per cent.

The general trend, in the utility field, as well as in the business field generally, is for a lower rate of return than prevailed in the predepression days and there appears no reason why the East Ohio Gas Company cannot "step along" with the times, and still be assured a fair and reasonable return upon the value of its property. In August, 1936, the Pennsylvania Public Service Commission (16 P.U.R.(N.S.) 65) found in the case of a natural gas company, the Pennsylvania Power & Light Company, that 6 per cent was a fair return and in a more recent pronouncement the Michigan Public Utilities Commission (16 P.U.R.(N.S.) 9) in the case of the Detroit Edison Company, declared that a return of $5\frac{1}{2}$ per cent was fair and reasonable.

Considering the general conditions affecting all businesses at the present time; the rate of return that is being returned by other businesses having comparable risks in the localities of this company; the rate that is necessary in order that the company may attract such capital as it is likely to require, and all other factors herein referred to, it is my conclusion that a rate of return of 6 per cent is a fair and reasonable one to be allowed in this case.

The allowances above pointed out which, in my opinion, are excessive and consequently unfair to the ratepayer will cost the Akron consumers at least \$80,000 per annum or a sum in excess of \$320,000 during the four years of the ordinance in question.

OHIO PUBLIC UTILITIES COMMISSION

The Akron rate should be at least 2½ cents per thousand cubic feet below that fixed by the majority Commis-

sioners and there should be an increase in the amount to be refunded accordingly.

NEBRASKA STATE RAILWAY COMMISSION

Re Northwestern Bell Telephone Company

[General Order No. 59.]

Depreciation, § 29 — Annual allowance — Experience basis.

1. A composite depreciation rate, applied to the depreciable property of a telephone company, should be determined from the actual experience of the utility, as against estimates and predictions of the company's engineers, p. 459.

Depreciation, § 23 — Annual allowance — Percentage for existing depreciation.

2. A composite depreciation rate fixed on the basis of the weighted average of debits to depreciation reserve in relation to annual average of depreciable property should not be increased by an allowance for accrued depreciation, when the depreciation reserve is kept invested in extensions and betterments and the company's investment is thereby kept and maintained intact, p. 459.

Depreciation, § 26 — Annual allowance — Excessive reserve.

3. The fact that a depreciation reserve is in excess of the amount required for existing accrued depreciation should be considered in fixing future depreciation rates, p. 460.

(MAUPIN, Commissioner, dissents.)

[January 21, 1937.]

INVESTIGATION of depreciation rates on a telephone company's depreciable property; composite annual depreciation rate established. See also, 11 P.U.R.(N.S.) 337.

BOLLEN, Chairman: By supplemental order entered April 9, 1934 (5 P.U.R.(N.S.) 20), we fixed respondent's composite depreciation rate for 1934 at 3.5 per cent on its depreciable property in Nebraska. This order was affirmed on appeal by the Nebraska supreme court (1935) 128 Neb. 447, 8 P.U.R.(N.S.) 46, 259 N. W. 362, and by the Supreme Court of the United States (1936)

17 P.U.R.(N.S.)

297 U. S. 471, 80 L. ed. 810, 13 P.U.R.(N.S.) 467, 56 S. Ct. 536.

By supplemental order entered November 27, 1935 (11 P.U.R.(N.S.) 337), we fixed respondent's composite depreciation rate for 1935 at 3.82 per cent. From this order respondent appealed to the supreme court of Nebraska and which court, on March 26, 1936, upon motion of appellant, dismissed said appeal.

458

RE NORTHWESTERN BELL TELEPHONE CO.

[1] Our order entered on November 27, 1935, fixing respondent's composite depreciation rate for 1935, at 3.82 per cent was based upon respondent's actual experience with debits to its depreciation reserve over a period of twenty-two years, which approximates an average cycle or a complete turn-over of respondent's depreciable property. This method of computation has received the approval of the courts. *Smith v. Illinois Bell Teleph. Co.* (1930) 282 U.S. 133, 75 L. ed. 255, P.U.R. 1931A, 1, 51 S. Ct. 65; *Lindheimer v. Illinois Bell Teleph. Co.* (1934) 292 U.S. 151, 78 L. ed. 1182, 3 P.U.R. (N.S.) 337, 54 S. Ct. 658; *St. Joseph Stock Yards Co. v. United States* (1936) 298 U.S. 38, 80 L. ed. 1033, 14 P.U.R. (N.S.) 397, 56 S. Ct. 720.

With the Supreme Court of the United States definitely committed to the test of actual experience as against estimates and predictions of companies' engineers, we are now of the opinion and so find that the same formula should be used by us to compute respondent's annual composite depreciation rate for 1936. In our former order we had before us respondent's and its predecessor's experience for a period of twenty-two years. We now have respondent's and its predecessor's experience for twenty-three years for its Nebraska property only. We also have this experience corrected by respondent's statistician to exclude property not now considered depreciable by the uniform system of accounts, effective January first, 1933, as follows:

[Table omitted shows total depreciable plant and equipment for twenty-

three years amounting to \$441,287,-239, or an average of \$19,186,402, and shows total debits to depreciation reserve amounting to \$14,714,471, or an average of \$639,760.]

This weighted average of debits to depreciation reserve for 23-year period is 3.33 per cent of its annual average of depreciable property in Nebraska.

[2] In supplemental order of November 27, 1935, *supra*, fixing respondent's composite depreciation rate for 1935 at 3.82 per cent, we found the above figure to be 3.37 per cent. We then allowed .45 per cent for accrued depreciation. We now find that we erred in allowing this additional percentage for existing accrued depreciation. Respondent's depreciation reserve is kept invested in extensions and betterments and respondent's investment is thereby kept and maintained intact. No additional percentage should be allowed to keep investment intact which is already intact.

The weighted average debits for the years 1913 to and including 1920 was 4.16 per cent of depreciable property. The weighted average debits for the years 1921 to and including 1935 was 3.13 per cent and for the year 1935, 1.76 per cent and for the entire period 3.33 per cent. This gradual reduction has probably been due to larger accrued depreciation in 1913 than in 1921, and improvements in the art which has increased the service life. In our order of April 9, 1934, *supra*, we found from the record that respondent's depreciable property was in 88 per cent condition. No evidence has been sub-

NEBRASKA STATE RAILWAY COMMISSION

mitted to show that it is in a less per cent condition now. We may therefore fairly assume that if respondent required a weighted average of 3.33 per cent for a period of twenty-three years that it should not require any excess amount for the next twenty-three years. The last twenty-three years represents nineteen years of active growth during which inadequacy on the account of growth has been the most important factor in estimating annual depreciation rates. The past four years has been a period of lack of growth during which inadequacy on the account of growth has not been an important factor.

[8] Respondent's depreciation reserve on December 31, 1935, was 30.6 per cent of its depreciable property. This is greatly in excess of the amount required for 12 per cent accrued depreciation and this fact should be considered by us in fixing future depreciation rates. *Smith v. Illinois Bell Teleph. Co. supra*, and *Lindheimer v. Illinois Bell Teleph. Co. supra*.

In 1932 respondent had a reserve

of plant capacity for future requirements. The economic depression resulted in the loss of many subscribers. Until this excess of plant capacity has been absorbed, inadequacy on account of growth cannot be an important factor in estimating future depreciation rates. Improvements in the art have and will extend the service life of depreciable property. Present conditions indicate that respondent will not require as high a depreciation rate in the future as was required in the past. If conditions do arise which require a higher rate than 3.33 per cent for future years, the Commission will increase the depreciation rate accordingly.

In consideration of all the evidence, we are of the opinion and so find that an over-all composite depreciation rate of 3.33 per cent will be adequate for the year 1936 and that respondent should apply such rates to primary accounts as will result in an over-all composite depreciation rate of not exceeding 3.33 per cent.

An order in conformity with this finding will be entered.

MICHIGAN PUBLIC UTILITIES COMMISSION

Re Uniform System of Accounts for Telephone Utilities

[D-1140.]

Accounting, § 6 — Uniform systems — Telephone companies.

1. The excessive detail required by the Federal Communications Commission is not necessary for the every-day conduct of the business and every-day regulation of the intrastate operations of the Class A telephone companies subject to the jurisdiction of the state Commission, and the expense

RE UNIFORM SYSTEM OF ACCOUNTS FOR TELEPHONE UTILITIES

involved is an unnecessary expense to be borne by the intrastate ratepayers, p. 461.

Accounting, § 6 — Uniform systems — Exemption from state requirement — Interstate companies.

2. Class A interstate telephone companies under the jurisdiction of the Federal Communications Commission should be permitted to keep their accounts in conformity with the system prescribed by the Federal Communications Commission only, pending completion of an investigation by the state Commission as to fundamental differences between the state accounting system and the system prescribed by the Federal Communications Commission, p. 461.

[December 31, 1936.]

INVESTIGATION of a system of accounts for telephone utilities; certain companies under jurisdiction of Federal commission permitted to keep accounts in conformity with Federal system pending investigation.

By the COMMISSION: The order of the Commission in the above cause dated December 3, 1935, adopted the Uniform System of Accounts for Telephone Companies prescribed by the Interstate Commerce Commission in its order of November 12, 1932, effective January 1, 1933, as the system of accounts for Class A telephone companies in Michigan. The Supreme Court of the United States has upheld the Uniform System of Accounts for Telephone Companies prescribed by the Federal Communications Commission, issued June 19, 1935, as the system of accounts for Class A companies subject to the jurisdiction of the Federal Communications Commission. There are in Michigan four Class A companies, two of which, the Michigan Bell Telephone Company and the Michigan Associated Telephone Company, are under the jurisdiction of the Federal Communications Commission as well as the Michigan Public Utilities Commission. The status of a third company, the Tri-County Telephone

Company, has not been determined, due to a question involving stock ownership. The fourth company, the Union Telephone Company, is subject to the jurisdiction of the Michigan Public Utilities Commission only.

[1, 2] The system of accounts prescribed by the Federal Communications Commission requires considerably more detailed accounting, subdivides a considerable number of the accounts formerly kept, imposes a perpetual inventory, and regroups the accounts to a considerable extent. It is the opinion of this Commission that the excessive detail required by the Federal Communications Commission is not necessary for the every-day conduct of the business and every-day regulation of the intrastate operations of the Class A telephone companies subject to the jurisdiction of the Michigan Public Utilities Commission.

The expense involved in the minute detailed accounting required by the

MICHIGAN PUBLIC UTILITIES COMMISSION

Federal Communications Commission is considerable and in our opinion an unnecessary expense to be borne by the intrastate ratepayers. The detailed differences between the two systems of accounts are being carefully analyzed to determine if any fundamental difference exists. Our investigation to date indicates that the accounts under the system prescribed by the Interstate Commerce Commission and adopted by this Commission can be readily obtained by the summation of one or more accounts prescribed by the Federal Communications Commission. The investigation has not been completed. Pending its completion and the discovery of fundamental differences which would make our present prescribed accounting system in conflict with that prescribed by the Federal Communications Commission, we feel it advisable to grant permission to the two Class A companies involved to keep only the set of accounts prescribed by the Federal Communications Commission without being in contempt of a previous order of this Commission.

Now, therefore, it is hereby ordered by the Michigan Public Utilities Commission that effective January 1, 1937, the Class A telephone companies in Michigan subject to the jurisdiction of the Federal Communications Commission may and they are hereby permitted to keep their accounts in conformity with the system prescribed by the Federal Communications Commission only, until such time as a further order is entered in this matter.

It is further ordered that the provisions of the December 2, 1935, order with respect to the annual report of operations of Class A telephone companies subject to the jurisdiction of the Federal Communications Commission be and they are hereby suspended with respect to the 1937 operations of those companies and will be made the subject of a further order upon completion of the detailed item by item investigation now in progress.

The Commission retains jurisdiction to make such further order or orders as the circumstances may require.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Re The Conestoga Company

[Application Docket No. 35051.]

Consolidation, merger, and sale, § 24.1 — Affiliated interests — Public interest.

1. Consolidation of a wholly owned motor bus company with a parent street railway and bus company should be approved when the plan of consolidation accords with law and presents no objectionable features and the public will benefit from the elimination of one corporate structure and from the closer coördination of street railway and motor coach operations that should follow the consolidation, p. 464.

RE THE CONESTOGA CO.

*by or
Utili-
Janu-
phone
to the
commu-
d they
e sys-
Com-
until
is en-*
*e pro-
5, or-
report
phone
iction
Com-
sus-
oper-
ill be
order
item
prog-
dic-
or
re-*
*reet
da-
lic
the
hat*

*Consolidation, merger, and sale, § 42 — Conditions — Segregation for rate making
— Street railway and bus utilities.*

2. Approval of the consolidation of a motor bus company with a street railway company is not to be understood as committing the Commission to approve or prescribe bus and coach rates and fares which with street railway rates and fares shall be sufficient to yield a return on all the property used and useful, but the company must account for its bus and coach property and operations separately and apart from its street railway property and operations, p. 464.

Consolidation, merger, and sale, § 54 — Terms and conditions — Return on purchase price.

3. Approval of the consolidation of a motor bus company with a parent street railway and motor carrier company is not to be understood as committing the Commission, in any proceedings that may be brought before it for any purpose, to fix a valuation on the corporate powers, franchises, property, rights, and credits of the subsidiary company equal to the amount of the consideration paid therefor by the parent company, or to approve or prescribe rates and fares which shall be sufficient to yield a return on such consideration, p. 464.

[February 15, 1937.]

APPLICATION for approval of the sale and transfer of the property, franchises, and rights of a motor transportation company to a parent corporation; granted subject to conditions.

By the COMMISSION: Petitioner, The Conestoga Company, a certificated common carrier of persons by motor vehicle in the city of Lancaster and vicinity, here asks our approval of the sale of all its property, franchises, and rights to Conestoga Transportation Company, a common carrier of persons by both street railway and motor vehicle in the same general territory. The sale would be made under authority of the Act of June 26, 1931, P.L. 1402.

That act provides that it shall be lawful, subject to our approval, for any street railway company to acquire, possess, own, hold, exercise, and enjoy all the corporate powers, franchises, property, rights, and credits of a common carrier of persons by motor vehicle, provided that the street railway company owns all the capital

stock of the common carrier of persons by motor vehicle; that the consolidation of the companies has the approval of the holders of a majority of the capital stock of each company; and that the street railway company shall surrender for cancellation the capital stock of the common carrier of persons by motor vehicle, and shall assume all the debts, liabilities, and duties of the common carrier of persons by motor vehicle.

Conestoga Transportation Company, the intending purchaser of all the property, franchises, and rights of petitioner, does own all the capital stock of petitioner, and the agreement between the two companies provides that petitioner shall sell and Conestoga Transportation Company shall purchase all the property, franchises, and rights of petitioner in consideration

PENNSYLVANIA PUBLIC SERVICE COMMISSION

of the cancellation by Conestoga Transportation Company of all petitioner's capital stock and of the assumption by Conestoga Transportation Company of all petitioner's liabilities. There are no protests.

The Conestoga Company was incorporated on April 15, 1932. It has \$10,000 par value of common capital stock outstanding. It has no preferred capital stock or bonds outstanding. It owns very little physical property; all the passenger motor coaches that it operates, and its garage facilities also, being leased from Conestoga Transportation Company.

Petitioner had the following assets and liabilities at November 30, 1936, which may be taken as representative of the present assets and liabilities: [Table omitted.]

Conestoga Transportation Company will take over the foregoing assets and liabilities at the foregoing figures (adjusted for later changes in the course of ordinary business), except, of course, that items Nos. 7, 12, and 13 will be canceled against similar items now in Conestoga Transportation Company's accounts.

Petitioner states that the purpose of the proposed sale is to centralize transportation operations in one company and to eliminate the necessity of keeping two sets of books of account. If and when the sale should be consummated, the corporate existence of petitioner would be terminated.

[1-3] We shall approve the consolidation of the two companies because the plan of consolidation accords with law and presents no objectionable features and because the public will benefit from the elimination of one corporate structure and from the

closer coördination of street railway and motor coach operations that should follow the consolidation. But our order of approval will contain provisions which will make clear that our approval is not to be understood as committing us to approve or prescribe bus and coach rates and fares which, with street railway rates and fares, shall be sufficient to yield a return on all the property of Conestoga Transportation Company used and useful in the public service. To the end that bus and coach rates and fares may be regulated separately and apart from street railway rates and fares, our order of approval will contain a further provision which will require Conestoga Transportation Company to account for its bus and coach property and operations separately and apart from its street railway property and operations. Our order of approval will also include a provision to the effect that our approval is not to be understood as committing us, in any proceedings that may be brought before us for any purpose, to fix a valuation on the corporate powers, franchises, property, rights, and credits of

The Conestoga Company equal to the amount of the consideration to be paid therefor by Conestoga Transportation Company, or to approve or prescribe rates and fares which shall be sufficient to yield a return on said consideration. See *Re Scranton Transit Co.* 14 Pa. P. S. C. — (Application Docket No. 33326); *Re Johnstown Traction Co.* 14 Pa. P. S. C. — (Application Docket No. 34531); *Re Harrisburg R. Co.* 14 Pa. P. S. C. — (Application Docket Nos. 33874, 33875).

Upon full consideration of the mat-

RE THE CONESTOGA CO.

ters involved in the application before us, we find and determine that the sale and transfer of all the property, franchises, and rights of The Conestoga Company to Conestoga Transporta-

tion Company, subject to the conditions hereinbefore indicated, is necessary and proper for the service, accommodation, convenience, or safety of the public.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Morris Keller

v.

Philadelphia Electric Company

[Complaint Docket No. 11225.]

Service, § 137 — Denial for meter tampering — Disputed evidence.

An electric utility company has no right to deny service to a customer at a new location because of the customer's refusal to pay a claim for alleged damage to a meter at his former location, where the evidence establishes a material and substantial dispute regarding the condition of the meter installed at the time the customer signed the application for service at that location and there is evidence that the meter was damaged prior to occupancy of the premises by the customer.

[February 2, 1937.]

COmplaint against denial of electric service for alleged meter tampering; complaint sustained.

By the COMMISSION: The basis of this complaint is that respondent, Philadelphia Electric Company, informed complainant on July 14, 1936, that it would refuse to supply electric service to complainant's premises, 5743 North Front street, Philadelphia, unless the sum of \$16.25, to cover the estimated loss and damage to respondent's meter located at the premises, 173 West Raymond street, Philadelphia, formerly occupied by complainant, was paid to respondent. Complainant avers that respondent's refusal to supply service to the prem-

ises 5743 North Front street is in violation of The Public Service Company Law.

Respondent admits the allegation but avers that such denial of service was based upon refusal of complainant to pay to respondent an estimated bill of \$16.25 to cover the loss and damage to its meter located at 173 West Raymond street, Philadelphia.

The testimony establishes that a meter was placed in service at 173 West Raymond street on March 29, 1923. Periodic tests of this meter were made by respondent's representa-

PENNSYLVANIA PUBLIC SERVICE COMMISSION

tive on July 12, 1926, and July 25, 1929, but no report was filed of any marks, scratches, or any evidence of damage to the meter.

Another periodic test on August 12, 1933, disclosed both seals broken, rusty scratches on the disc and the magnet, and scratches on the left side of the flange of the metal cover. Upon the completion of this examination and test the meter was sealed in accordance with respondent's standard practice. The conditions were noted on a standard form card of respondent, as follows: "both meter seals broken and rusted, doubtful as to being purposely broken. Slight scratches on disc and flange, left side of metal cover very faintly scraped, do not think necessary to change cover as cover is very faintly scraped," and the card was filed.

The result of the meter test was noted on a standard form meter record test card, with this notation—"Both meter seals broken, wires rusty, doubtful as to T"—and turned in to his superiors. Subsequently, the notation "Legal department notified" was stamped on the meter test card.

Respondent's meter man reported that an inspection of the meter on April 18, 1936, showed the meter seals intact, the right-hand cover flange scratched and polished, the gasket loose and torn, the left-hand edge of the meter cover slightly scraped, a hole in the cover under the serial tag, scratches on the bottom and edge of the disc. The meter was removed May 16, 1936, at which time the seals were found intact.

A complete examination of the meter after its removal showed an indentation with slight scratches under

the center of the serial tag and, on the inside of the meter cover, a small hole opposite the outside indentation, the right side of the metal cover and the cover gasket scraped and scratched, the right side of the flange scratched, scratches on the left-hand side of the magnets, marks on the bottom of and nicks on the edge of the disc.

On June 1, 1936, complying with respondent's written request, complainant called at respondent's office and was apprised of these discoveries. Respondent made no demand on complainant at this time for any payment. Complainant called at respondent's office again on June 2, 1936, and was again told of the discoveries and informed that the amount he would be required to pay would be about \$48. Complainant refused to make payment of any amount. Complainant's attorney on June 8, 1936, communicated with respondent and stated he would advise complainant to make no payment. Respondent, on June 11, 1936, advised complainant by registered letter that unless a settlement was made, the electric service would be discontinued on June 16, 1936. Pursuant to a telephone conversation with complainant's attorney on June 16, 1936, the service was not discontinued.

From the testimony of record it appears that complainant, on July 11, 1936, made application to respondent for service to be supplied to premises at 5743 North Front street which had been purchased by him. Respondent refused to accept complainant's application for service. On July 13, 1936, respondent returned to complainant his deposit with interest with respect to service at 173 West Raymond street,

KELLER v. PHILADELPHIA ELECTRIC CO.

which complainant had vacated, thereby terminating all service contract relations between respondent and complainant. The testimony shows that the final bill of \$2.60 for electric service supplied complainant at 173 West Raymond street has been paid since the filing of this complaint.

Complainant and his attorney called at respondent's office July 14, 1936, and were again told that service at 5743 North Front street would not be given until arrangements had been made for the payment of the sum of \$16.25 by complainant for the loss and damage to respondent's meter at 173 West Raymond street, which amount is made up of the following items:

Four inspections \$1 each	\$4.00
Investigations	5.75
Meter parts	2.30
Labor installing meter parts	2.70
Changing meter	1.50
Total	\$16.25

Respondent makes no demand for payment by complainant of any amount for unregistered current.

Article III, § 1 (c) of The Public Service Company Law (66 PS § 153) provides, in part, that it shall be lawful for every public service company—

"To have reasonable rules and regulations, subject to existing law and the provisions of this act, governing the conduct of its business and the conditions under which it shall be required to render service."

Respondent's tariff electric P.S.C. Pa. No. 13, in effect at the time of these occurrences, contains the following provisions:

"Every applicant for electric service may be required to sign a con-

tract, agreement, or other form then in use by company and must agree to abide by the rules and regulations and standard requirements of the company."

"The rules and regulations filed as a part of this tariff are a part of every contract for service."

"A deposit or other guaranty satisfactory to the company may be required of the applicant."

"On discontinuance of service and payment in full of all service charges the company will refund the deposit."

"Upon request the company will designate a location satisfactory to it for the meter or other equipment necessary for the fulfilment of the contract entered into. The customer shall be responsible for the company's meter while on his premises and in event of injury or destruction shall pay the cost of repairs and replacement."

"Service will not be furnished to a former customer until any indebtedness to the company for previous service has been satisfied."

"The company may reject any application for service not available under a standard rate or which involves excessive service cost or which might affect the supply of service to other customers or for other good and sufficient reasons."

The record shows that respondent has installed a meter and is supplying complainant electric service pending the decision of the Commission in this proceeding.

The record shows that respondent's refusal to accept complainant's application was due to the latter's refusal to pay respondent for the loss and damage to the meter estimated to be \$16.25.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

We are not convinced that refusal by complainant to pay to respondent the sum of \$16.25 for loss and damage to its meter at 173 West Raymond street constitutes "other good and sufficient reasons" for the refusal of respondent to accept complainant's application for service to 5743 North Front street.

The testimony of respondent's meter man, regarding the periodic test of August 12, 1933, and his written report of the conditions found at that time indicate that the broken and rusty seals and the marks and scratches on the outside and inside of this meter were doubtful evidence of tampering and slight in nature, and it was, therefore, unnecessary to change the meter cover. The service to complainant at 173 West Raymond street was started April, 1933, about four months prior to the periodic test of August 12, 1933, when the broken rusty seals and the other conditions were discovered and reported. Respondent's meter man testified the inspection at the time of the periodic test August 12, 1933, did not include the raising of the serial tag which it was subsequently discovered covered a hole in the meter cover.

The evidence of record establishes a material and substantial dispute between the respondent and complainant regarding the condition of the meter installed at the time complainant signed the application for service at 173 West Raymond street.

The testimony of respondent's witness (T. 95) is to the effect that as of the time of the hearing (September, 1936) certain brilliant scratches on the disc "have not been there so long," while certain light scratches on the

disc "may have been there five or six years." This would place the time of marking of the disc with the light scratches in 1930 or 1931, some two years prior to April, 1933, when complainant first took service at 173 West Raymond street. Four months later, in August, 1933, the seal wires were found rusted and broken, and it is reasonable to infer that such condition could not obtain in so short a period as four months. While respondent's witness states (T. 94) that the hole through the meter case under the serial tag was placed there within a period of two years, which would fix the time in 1934, such testimony is in conflict with the observation of the scratches on the meter disc in 1933, which scratches could have resulted only by application to the disc of a foreign instrument and obviously this could have been inserted only through a hole in the meter case, as testified by respondent's witness (T. 81). The testimony establishes that certain markings on the disc and the condition of the seal wires as observed in August, 1933, resulted from events prior to April, 1933, when complainant first occupied the house on Raymond street.

The condition of the meter at 173 West Raymond street was discovered after complainant had occupied the premises for some months and the meter was thereafter continued in service.

Inasmuch as the rules and regulations of respondent bind the consumer for liability, it is the duty of the respondent to see, and the consumer is entitled to know at the time an application is signed, that the meter to register the electric current under the

KELLER v. PHILADELPHIA ELECTRIC CO.

or six time of the light
the two com-
3 West
s later,
es were
d it is
dition
period
ndent's
ne hole
the se-
ithin a
ould fix
ny is in
of the
1933,
resulted
sc of a
ly this
through
ified by
. The
certain
dition
in Au-
ts prior
plainant
aymond
at 173
covered
ied the
nd the
ued in
regula-
nsumer
the re-
umer is
an appli-
to reg-
der the

contract bears no marks, scratches, or evidence of any nature that could, in the future, be used as a basis for a claim of tampering or other liability. A utility is not justified in placing in service or continuing in service a meter or other equipment in improper condition. Otherwise, as a prerequisite to securing service, the consumer, in signing a contract including liability for damage to the company's meter, may unknowingly be assuming liability for damage already done to a meter but not yet discovered.

We are of the opinion that the act of respondent in refusing to com-

plainant electric service at the premises 5743 North Front street, because of his refusal to make payment to respondent of the sum of \$16.25 to cover an estimated loss and damage to its meter located at the premises previously occupied by complainant, is a violation of the rights of the complainant and contrary to the legally filed rules and regulations of respondent's tariff.

Upon a full consideration of the record, we are of the opinion and find that respondent's refusal to serve complainant except upon payment of the sum of \$16.25 is unreasonable.

MISSOURI PUBLIC SERVICE COMMISSION

Re Missouri Power & Light Company

[Case No. 9287.]

Rates, § 252 — *Schedules — Adherence to.*

1. The Commission, under the law, is obliged to authorize an electric utility company to charge for service rendered in conformity with its schedule on file and in effect, although the schedule is reviewable at any time that sufficient cause may be brought to the attention of the Commission, p. 471.

Rates, § 143 — *Cost of service — Classes of customers.*

2. Rates for a service must be sufficient to bear the burden of rendering the service, and the burden cannot be placed on other customers, although customers are entitled to service at the lowest rates possible, p. 472.

Rates, § 355 — *Electric — Rural service.*

3. Customers on rural electric lines must pay the cost incurred in furnishing rural service, p. 472.

Service, § 230 — *Abandonment — Rural electric line — Inadequate revenues.*

4. An electric utility company which for several years has furnished rural service under contract to a group of customers must be allowed to abandon the line unless the customers are willing to pay the proper rates therefor, particularly where the line is out of service because of its destruction by an ice storm and where the widening of a road will make it necessary to relocate the line and reconstruct a substantial part of it, p. 472.

[February 25, 1937.]

MISSOURI PUBLIC SERVICE COMMISSION

A PPLICATION for authority to abandon a branch rural electric line; application granted.

By the COMMISSION: This case is before the Commission upon the application of the Missouri Power & Light Company for authority to discontinue the maintenance and operation of a 2,300-volt electric line extending northeastwardly from the city of Clifton Hill, heretofore used in the furnishing of electric service to rural customers.

The applicant is a public utility corporation incorporated under the laws of the state of Missouri and engaged in the purchase, generation, transmission, and distribution of electrical energy for the rendition of electric service to inhabitants located throughout a large part of the state, including many cities, towns, and villages. Among the groups served are rural customers, such as the protestants involved in this case.

It desires to abandon the line now used in furnishing the aforesaid customers electric service. They protest the discontinuance of the service or the charging of the rates that the applicant contends are filed in its schedule applying to that class of service.

The case was heard at the Commission's hearing room on February 4, 1937, at which time all interested parties were given an opportunity to be heard. At the conclusion of the hearing the case was submitted on the record.

The evidence shows that the transmission line in question was constructed about seventeen years ago by The Clifton Hill Light & Power Company, predecessor of the applicant. This pred-

ecessor owned an electric distribution system in the city of Clifton Hill. On November 9, 1921, a group of rural customers known in that community as the Fort Henry Group, entered into a contract with the predecessor for electric service to be delivered at their farms northeast of Clifton Hill. A copy of that contract is filed as Applicant's Exhibit No. 2 in this case. It shows, among other things, that the consumers agreed to advance to the Electric Company \$150 each as a loan. The company agreed to furnish all labor and materials necessary to build and put into operation the required electric line along the public highway extending to and by their respective farm properties. The Electric Company was to own, maintain, and operate the line and keep it in good condition. It is shown that the consumers agreed to pay a minimum charge of \$2 per month for the service. For the minimum charge 10 kilowatt hours were to be allowed. All current over the 10 kilowatt hours was to be paid for at the rate of 15 cents per kilowatt hour. The contract further provided that the \$150 advanced by the consumers was to be paid back in service by crediting the monthly electric light bills until fully refunded. It is shown that ten prospective customers signed that contract.

A map filed at the hearing, marked Applicant's Exhibit No. 1, shows in detail the route of the transmission line that is to be abandoned and the location of the present customers,

RE MISSOURI POWER & LIGHT CO.

twelve in number. The line is 4.3 miles in length.

The applicant contends that it has

present line and what it would have been if its rural rate were applied, as follows:

Name	Kw. Hr. Used	Old Rate	Rural Rate 7-1-35	Monthly Guaranty	Monthly Excess Cost	Total Monthly Minimum
Hugo Alm	110 in 9 months	\$13.05	\$60.75	\$2.50	\$4.25	\$6.75
A. A. Baker	350 in 12 "	30.95	83.64	2.50	4.25	6.75
E. E. Broadus	110 in 12 "	15.10	81.10	2.50	4.25	6.75
W. L. Burton	202 in 12 "	21.77	82.34	2.50	4.25	6.75
J. G. Griffin	137 in 12 "	17.60	81.00	2.50	4.25	6.75
Roy Hughes	60 in 3 "	6.00	20.75	2.50	4.25	6.75
Gail Jarvis	109 in 7 "	11.20	47.25	2.50	4.25	6.75
C. J. Patton	238 in 12 "	24.37	81.80	2.50	4.25	6.75
Geo. Patton	244 in 12 "	24.04	81.10	2.50	4.25	6.75
C. G. Smith	41 in 4 "	4.55	27.00	2.50	4.25	6.75
Ft. Henry School	16 in 12 "	8.75	81.00	2.50	4.25	6.75
New Hope Church	34 in 12 "	15.00	81.00	2.50	4.25	6.75
Total	1,651	\$192.38	\$808.73	\$30.00	\$51.00	\$81.00

maintained and operated the line continuously from the time of its purchase, but that extensive maintenance is now required and that the line should be rebuilt if service is to be continued. The line is now out of service because of its destruction by a recent ice storm. Furthermore, because of the widening of the road that is about to be made, it will be necessary for the line to be removed from its present location and reconstructed throughout a substantial part of it. Because of that condition the applicant has requested that the customers execute a new electric service contract. That they have declined to do. The customers have been getting the service and paying for it at the rates effective within the city of Clifton Hill. The applicant contends that these rates are substantially lower than the rural rate schedule now filed with the Commission. It may be added that they are lower than the rates that were provided for in the original contract under which the customers originally arranged for the service.

Applicant's Exhibit No. 5 shows a comparison of one year's billing on the

[1] Under the rates and charges and the cost unit provided for in the applicant's rate schedule applying to rural service, it has made an estimate showing the value of the line when relocated and reconstructed in conformity with its standard construction. The details of that estimate are shown by Applicant's Exhibit No. 6. The total investment which it claims should be charged for the twelve customers is \$4,753.73. Under its rate schedule it is required to invest three times the guaranteed annual revenue, which would amount to \$1,080, leaving an excess cost investment of \$3,673.73 to be paid for in addition to the rates and charges provided for in the regular rural schedule applicable to the energy used by each customer. Under its schedule the minimum bill per month for each customer to pay if the service is to continue is \$6.75. Included in that minimum would be a monthly excess cost charge of \$4.25 and a monthly service guaranty of \$2.50. The applicant contends that its proposed charges are in conformity with its schedule filed in response to the findings of the Com-

MISSOURI PUBLIC SERVICE COMMISSION

mission in Case No. 8743 (10 P.U.R. (N.S.) 8) in which case the Commission made a full investigation of the rates and charges that the applicant should make for service to be rendered to its rural customers. Under the law we are obliged to authorize the applicant to charge for service rendered in conformity with its schedule on file and in effect. The schedule, of course, is reviewable at any time that sufficient cause may be brought to the attention of the Commission for making a further investigation of the rates to be charged for the particular class of service in question. The present rates were put into effect July 1, 1935, and it does not appear from the evidence in this case or from any other information now before the Commission that there is cause for a further investigation. No evidence has been submitted in this case to show that the applicant is attempting to extend the service and charge therefor in any way different from that provided for in its schedule now in effect.

[2-4] The customers of the company, of course, are entitled to the service at the lowest rates possible but the rates must be sufficient to bear the burden of rendering the service. The burden cannot be placed on other customers.

The Commission is in sympathy with the extension of electric service to rural customers. It is of the opinion that adequate electric service is

one of our most desirous commodities to be made available in rural areas. It is, however, absolutely necessary to realize that there are certain costs to be incurred in furnishing that service and the customers served should pay for it. The applicant contends that these customers have had the service for some seventeen years at rates not compensatory, and that may be true. They have been very fortunate in securing it at the lower rates, but now since the applicant insists upon not reconstructing the line or continuing the service unless paid for at its regular schedule of rates, it must be allowed to abandon the line unless the customers are willing to pay the proper rates therefor. If the line were in good condition and would continue so for a number of years without heavy maintenance or reconstruction, it might be possible to figure that applicant could well afford to continue it rather than to remove it at this time to avoid incurring the expense of removing it and taking the loss on any equipment that would not justify replacing on its system at some other place.

After considering all the evidence we are of the opinion that the applicant should not be required to reestablish this service but should be authorized to abandon the line within thirty days, unless required to remove said line to provide for the widening of the highway, a matter over which it or this Commission has no control.

RE PENNSYLVANIA GAS & ELECTRIC CO.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Re Pennsylvania Gas & Electric Company

[Application Docket No. 35151.]

Intercorporate relations, § 18.1 — Sale of securities — Utility investments.

A public utility company, having a large part of its capital funds invested in securities of affiliated companies some of which do not render gas service in territory adjacent to that of the utility company, should be authorized to sell preferred stock of such an affiliate to the utility's parent corporation in order to obtain funds for retiring outstanding bonds, where this is a step in the direction (approved by Commission policy) of reducing investments in property not related to the rendition of public service by the utility company.

[February 23, 1937.]

APPLICATION for approval of the sale of certain securities to a holding company; application granted.

By the COMMISSION: Pennsylvania Gas and Electric Company, hereafter referred to as the petitioner, is a Pennsylvania corporation furnishing gas to the public in the city of York and in certain other portions of York county. All of petitioner's voting capital stock is owned by Pennsylvania Gas and Electric Corporation, hereafter referred to as the corporation, a Delaware company, which also owns all of the voting capital stock of North Penn Gas Company, a Pennsylvania corporation furnishing gas to the public in Tioga, Potter, and McKean counties.

North Penn Gas Company has outstanding 13,160 shares of \$7 cumulative preferred stock, without par value, in addition to certain other securities not involved in this proceeding. In May, 1927, petitioner bought 6,190 shares of said stock from North Penn Gas Company, and in June,

1927, it bought the remainder, 6,970 shares, from the corporation, in each case paying a price of \$100 per share. Neither the issuance of these shares by North Penn Gas Company, nor their purchase by petitioner, was approved by us, approval of such transactions not having been required by law until 1933. As a result petitioner became and is now the owner of the entire issue of the stock. This stock is without voting power and, as stated heretofore, control of North Penn Gas Company is vested solely in the corporation. Dividends at the rate of \$7 per year have been paid regularly, and none is in arrears at the present time.

By agreement dated January 25, 1937, petitioner has arranged to sell 6,500 shares of the stock to the corporation on or before March 1, 1937, at \$100 per share, plus accrued dividends to date of delivery. The agree-

PENNSYLVANIA PUBLIC SERVICE COMMISSION

ment further provides that the corporation shall be entitled, at its option, to purchase all or any part of the remaining 6,660 shares of stock from petitioner, at any time up to September 1, 1938, at the same price. This application is for our approval of the sale of these securities by petitioner to the corporation, under Art. III, § 11 (b) of The Public Service Company Law.

Petitioner states that it will use the proceeds of sale of the 6,500 shares of stock in retiring, at the present call price of 103, all of its own 15-year 6 per cent sinking-fund gold debentures, Series A, due December 1, 1940, now outstanding in the principal amount of \$627,300. Interest on these debentures is payable without deduction for any tax (other than inheritance taxes, and Federal income tax in excess of 2 per cent) which the company is authorized to deduct from such interest, and in addition the company has covenanted to reimburse the holder for any such taxes which he may pay—but not in excess of five mills per dollar of principal amount per annum. As a result of this covenant, the current annual cost to the company of a debenture held by a Pennsylvania resident is 6 per cent interest, plus .8 per cent corporate loans tax, plus .12 per cent Federal income tax, or a total of 6.92 per cent, exclusive of the cost of filing tax returns, mailing checks, and other administration. The cost of these debentures, therefore, is nearly as much as, if not more than, the return which petitioner receives upon the North Penn Gas Company stock, and the proposed sale of stock will not be disadvantageous in that respect.

However, there is another aspect of this case which requires discussion. The present capitalization of petitioner, including stocks and funded debts, aggregate \$7,600,000, but the undepreciated book value of its fixed capital, used in furnishing service to its own consumers, is only \$3,937,773. A large part of its capital funds has been invested in the securities of affiliated companies, of which some do and some do not render gas service in territory adjacent to that of petitioner. The investments of petitioner in affiliates is shown below:

	Amount Invested
Adjacent:	
Interborough Gas Company	\$135,718
Conewago Gas Company	592,482
Subtotal	\$728,200
Nonadjacent:	
North Penn Gas Company	1,317,960
Peoples Light Company of Pittston	816,008
Petersburg and Hopewell Gas Company	548,911
Penn Western Service Corporation	1,020
Subtotal	\$2,683,899
Total	\$3,412,099

The companies classified in the above table as "nonadjacent" do not serve gas in territory sufficiently close to that of petitioner to make practicable their operation as a part of petitioner's gas system. The first two are Pennsylvania public service companies, furnishing gas in the northern and northeastern parts of the state. The other company in which petitioner has a major investment, Petersburg and Hopewell Gas Company, is a Virginia public service company.

The Commission is of the opinion that the funds obtained by public

RE PENNSYLVANIA GAS & ELECTRIC CO.

service companies from the issuance of securities should be used in a manner related to the rendition of public service by the issuers. The application before us is a step in that direction. If the proposed sale were not permitted, petitioner would continue to hold its North Penn Gas Company investment, and would probably continue its present capital set-up by refunding the debentures, when they mature in 1940, through the issuance of new securities. On the other hand, by obtaining our consent, petitioner will be enabled to reduce both its "unrelated" investments and its own securities outstanding against them.

Inasmuch as the corporation has made no commitment, but merely holds an option to buy 6,600 shares of the stock from petitioner, the latter has not determined upon the specific use to be made of the proceeds in the event of their sale. It has stated,

however, that such proceeds would be used to retire other outstanding funded debt, and it further stipulates that they will not be used except in such manner as the Commission may approve upon supplemental application.

Upon consideration of this application, the Commission finds and determines that approval thereof is necessary or proper for the service, accommodation, or convenience of the public; therefore,

Now, to wit, February 23, 1937, it is *ordered*: That the sale by Pennsylvania Gas and Electric Company to its holding company, Pennsylvania Gas and Electric Corporation, of 13,160 shares of \$7 cumulative preferred stock of North Penn Gas Company, upon the terms recited in the application and stipulation of record herein, be and is hereby approved, and that a certificate of public convenience issue in evidence thereof.

UNITED STATES SUPREME COURT

Great Northern Railway Company

v.

State of Washington

[No. 20.]

(— U. S. —, 81 L. ed. —, 57 S. Ct. 397.)

Constitutional law, § 14.1 — State power to regulate — Cost of supervision and regulation.

1. A state may provide for the supervision and regulation of public utilities, may delegate the duty to an officer or Commission, and may exact the reasonable cost of such supervision and regulation from the utilities concerned and allocate the exaction amongst the members of the affected class without violating the rule of equality imposed by the Fourteenth Amendment of the Federal Constitution, p. 479.

UNITED STATES SUPREME COURT

Interstate commerce, § 28 — Powers of state — Local regulations.

2. The supervision and regulation of the local structures and activities of a corporation engaged in interstate commerce and the imposition of the reasonable expense thereof upon such corporation are not a burden upon, or regulation of, interstate commerce in violation of the commerce clause of the Constitution, p. 479.

Constitutional law, § 14.1 — State regulatory and inspection fees — Validity of statute.

3. A statute imposing a fee upon interstate railroads to meet the expense of state Commission supervision and regulation, although presumed to be valid, may show on its face that some part of the exaction is to be used for a purpose other than the legitimate one of supervision and regulation and may, for that reason, be void; and a statute fair upon its face may be shown to be void and unenforceable on account of its actual operation, p. 479.

Constitutional law, § 14.1 — State regulatory and inspection fees — Validity of statute.

4. A statute imposing upon railroads a fee to meet state Commission regulatory and inspection expenses is not unconstitutional on its face because the same fee is exacted from public utilities generally and the collections go into a single fund and are indiscriminately disbursed for the many branches of the Commission's work, since these facts, without more, do not prove that the amounts derived from the railroads are in excess of the legitimate expenses of inspection and regulation, p. 480.

Constitutional law, § 7 — State regulatory and inspection fees — Interstate railroads — Burden of proof.

5. A railroad company, suing a state to recover fees paid under protest to the state Commission under a statute imposing such fees on interstate railroads and on public utilities generally, does not have the burden of showing that the sums exacted from rail carriers substantially exceeded the amounts expended for regulation and supervision, where it is demonstrated that, while expenses other than those of inspection and regulation of railroads (properly within the powers of the state to impose) are paid out of the fees, the amount of the excess over what is necessary for regulation and inspection cannot be ascertained from the Commission's accounts, since under such circumstances the burden is on those seeking to collect the charge, p. 481.

Appeal and review, § 27 — Review by Supreme Court — Conclusiveness of finding.

6. The Supreme Court, in reviewing a decision of a state court involving a Federal right, must examine the evidence to ascertain whether it supports the decision against the claim of Federal right, and the Supreme Court is not concluded by a finding of fact or a mixed finding of law and fact made by the state court, p. 483.

Constitutional law, § 14.1 — State inspection and regulatory fees — Reasonableness — Burden of proof.

7. A state imposing fees upon interstate railroads to meet the cost of inspection and regulation fails to carry the burden of showing that the sums exacted from such a railroad do not exceed what is reasonably needed for the service rendered, when the evidence is uncontradicted and conclusive that amounts expended for railroad accounts include substantial and apparently

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

large amounts for activities in the interest of interstate shippers and for the trial of reparation cases, p. 484.

(HUGHES, C. J., CARDENAS, BRANDEIS, and STONE, JJ., dissent.)

[February 1, 1937.]

APPEAL from judgment of supreme court of the state of Washington adverse to a railroad company in a suit to recover regulatory and inspection fees collected by the state; reversed and remanded. For lower court decision, see 184 Wash. 648, 52 P. (2d) 1274.

APPEARANCES: Thomas Balmer and L. B. da Ponte, both of Seattle, Washington, argued the cause for appellant; George G. Hannan, of Seattle, Washington, argued the cause for appellee.

Mr. Justice ROBERTS delivered the opinion of the court: This is an appeal from a judgment of the supreme court of Washington¹ in an action brought by the appellant to recover fees for the years 1929-1933 paid under protest to the State Department of Public Works. The relevant statutory provisions are:²

"Section 1. That hereafter every person, firm, or corporation engaged in business as a public utility and subject to regulation as to rates and charges by the Department of Public Works, except auto transportation companies and steamboat companies holding certificates under Chap. 248 of the Laws of 1927, shall, on or before the first day of April of each year, file with the Department of Pub-

lic Works a statement on oath showing its gross operating revenue for the preceding calendar year or portion thereof and pay to the Department of Public Works a fee of 1/10 of one per cent of such gross operating revenue: *Provided*, That the fee so paid shall in no case be less than \$10."

"Section 2. All sums collected by the Director of Public Works under the provisions of this act shall within thirty days after their receipt be paid to the state treasurer, and by him deposited in a fund to be known as the public service revolving fund."

The supreme court of the state has defined the exaction as a regulatory or inspection fee, and has declared that the fund created by the sums collected must be used solely for administering the state Public Service Commission Law.³

The complaint⁴ alleges that the Department of Public Works exercises jurisdiction and supervision over sundry public utilities, including common carriers by rail, electric and street rail-

¹ (1935) 184 Wash. 648, 52 P. (2d) 1274.
² Wash. Sess. Laws 1929, Chap. 107. (Remington's Rev. Stats. §§ 10417, 10418.) This act amended § 1 of Chap. 113 of the Laws of 1921, as amended by § 1, Chap. 107 of the Laws of 1923. It left § 2 of Chap. 113, Laws of 1921, in effect.

³ Pacific Teleph. & Teleg. Co. v. Seattle (1933) 172 Wash. 649, 21 P. (2d) 721.

affirmed on other questions in (1934) 291 U. S. 300, 78 L. ed. 810, 54 S. Ct. 383. See also the opinion below, 184 Wash. 648, 650, 52 P. (2d) 1274, 1275.

⁴ The complaint as filed sought recovery also of sums paid pursuant to other statutory provisions. The appellant, however, abandoned these items of claim.

UNITED STATES SUPREME COURT

ways, gas, electrical and water companies, telegraph and telephone companies, wharfingers, warehousemen, and carriers by water, engages in many activities disconnected from, and unrelated to, the inspection and supervision of rail carriers, and has a variety of duties in the enforcement of the state's police power. The complaint affirms that the fee is not based upon or restricted to the cost of legitimate regulation or supervision but is used to defray the costs of other activities in connection with railroads and also of supervising and inspecting unrelated public utilities and of performing other duties the expense of which cannot legitimately be imposed upon carriers by rail; that the fee is grossly in excess of the reasonable cost of inspection and regulation of railroads; that, to January 1, 1933, there had accumulated from the fees collected more than \$250,000 in excess of the amount expended by the department in the discharge of all its duties; that the statute is in truth a revenue measure; that the state taxes plaintiff's property and other like property on an ad valorem basis. The complaint charges that the fee is a burden on, and a regulation of, interstate commerce in violation of Art. 1, § 8 of the Constitution; is so arbitrary, excessive, discriminatory, and unequal as to deny the plaintiff equal protection of the laws and to deprive it of property without due process of law, in violation of the Fourteenth Amendment.

The answer admits plaintiff's payment under protest; admits that the Department of Public Works exercises jurisdiction and supervision over many classes of public utilities,

including common carriers, and that the plaintiff's property within the state is assessed on an ad valorem basis for taxes like other property; admits plaintiff's capacity to sue, but denies substantially all other allegations of the complaint.

The case was tried without a jury. The evidence largely consisted of the annual reports of the Department. By the uncontradicted evidence and by the relevant statutes the following facts were established: The Department has jurisdiction of various classes of public utilities, including railroads, electric and street railways, gas, electric, and water companies, telegraph and telephone companies, wharfingers, warehousemen, and carriers by water, in respect of which it exercises many regulatory and supervisory duties. As respects railroads, the Department constantly exercises functions unrelated to inspection and supervision, including the statutory duties of taking part in litigation before the Interstate Commerce Commission affecting the citizens of the state, and of acting judicially in decreeing refunds of overcharges. These functions, unrelated to the inspection and regulation of railroads, entail large expense. Between 1929 and 1933 the legislature made no appropriation from the state's general fund for the expenses of the Department's activities, all being paid indiscriminately out of the Department's fund derived from the fees collected from businesses subject to its jurisdiction. During this period the surplus accumulated from such receipts was \$224,193.95, which was expended in 1934 in carrying on investigations of, and litigation with, public utility corporations other than

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

railroads. No separate accounts are kept, or required by law to be kept, with respect to the expense of these various activities, and it is impossible to determine from the records and accounts of the Department the expense of inspecting and regulating railroads separate and apart from the expense of regulating other utilities or other functions of the Department.

The plaintiff called the Department's auditor who testified that the charge of one-tenth of one per cent of gross income collected from utilities goes to build up a fund from which all the Department's expenses are paid; that he had figures classifying the expenditures according to the various kinds of utilities with which the Department is concerned. These calculations he had made for himself, there being no duty under the law to keep accounts on this basis. He testified that, in computing the expenditures in connection with railroads, he lumped them as railroad charges and made no separation of the costs of inspection and regulation, the costs of rate hearings, and the costs of reparation proceedings, although the evidence establishes that many of the railroad charges had to do with reparation cases and litigation before the Interstate Commerce Commission. At the close of plaintiff's case, the defendant recalled the auditor as its own witness. He testified that the disbursements chargeable to the railroads for the period 1929 to 1933, inclusive, exceeded the receipts from railroads in the same period by \$37,833. He did not, however, qualify what he

had previously stated, that, in making up these figures, he had lumped all railroad charges, whether for inspection and regulation or interstate commerce cases or reparation cases. Upon cross-examination it developed that the figures he submitted were not official, and, so far as they covered salary items, had been made up from slips which the various employees, at his request, had turned in monthly allocating the time each employee spent in the various branches of the work, and the witness had no personal knowledge of the accuracy of these slips. Plaintiff objected to the testimony and moved to strike it on the ground that it was hearsay but the court let it stand, subject to the objection. A judgment awarded the plaintiff by the trial court was reversed by the Supreme Court.

[1-3] The principles governing decision have repeatedly been announced and were not questioned below. In the exercise of its police power the state may provide for the supervision and regulation of public utilities, such as railroads; may delegate the duty to an officer or Commission; and may exact the reasonable cost of such supervision and regulation from the utilities concerned and allocate the exaction amongst the members of the affected class without violating the rule of equality imposed by the Fourteenth Amendment.⁵ The supervision and regulation of the local structures and activities of a corporation engaged in interstate commerce, and the imposition of the reasonable expense thereof upon such corporation, is not

⁵ Charlotte, C. & A. R. Co. v. Gibbes (1892) 142 U. S. 386, 35 L. ed. 1051, 12 S. Ct. 255; New York ex rel. New York Electric Lines

Co. v. Squire (1892) 145 U. S. 175, 191, 36 L. ed. 666, 672, 12 S. Ct. 880.

UNITED STATES SUPREME COURT

a burden upon, or regulation of, interstate commerce in violation of the commerce clause of the Constitution.⁶ A law exhibiting the intent to impose a compensatory fee for such a legitimate purpose is *prima facie* reasonable.⁷ If the exaction be so unreasonable and disproportionate to the service as to impugn the good faith of the law⁸ it cannot stand either under the commerce clause or the Fourteenth Amendment.⁹ The state is not bound to adjust the charge after the fact, but may, in anticipation, fix what the legislature deems to be a fair fee for the expected service, the presumption being that if, in practice, the sum charged appears inordinate the legislative body will reduce it in the light of experience.¹⁰ Such a statute may, in spite of the presumption of validity, show on its face that some part of the exaction is to be used for a purpose other than the legitimate one of supervision and regulation and may, for that reason, be void.¹¹ And a statute fair upon its face may be shown to be void and unenforceable on account of its actual operation.¹² If the exaction be clearly excessive it is bad *in toto* and the state cannot collect any part of it.¹³

⁶ Atlantic & P. Teleg. Co. v. Philadelphia (1903) 190 U. S. 160, 47 L. ed. 995, 23 S. Ct. 817; Mackay Teleg. & Cable Co. v. Little Rock (1919) 250 U. S. 94, 99, 63 L. ed. 863, 868, 39 S. Ct. 428.

⁷ Western U. Teleg. Co. v. New Hope (1903) 187 U. S. 419, 425, 47 L. ed. 240, 243, 23 S. Ct. 204; Pure Oil Co. v. Minnesota (1918) 248 U. S. 158, 162, 63 L. ed. 180, 188, 39 S. Ct. 35.

⁸ New Mexico ex rel. McLean & Co. v. Denver & R. G. R. Co. (1906) 203 U. S. 38, 55, 51 L. ed. 78, 88, 27 S. Ct. 1. Compare Red "C" Oil Mfg. Co. v. Board of Agriculture (1912) 222 U. S. 380, 393, 56 L. ed. 240, 244, 32 S. Ct. 152; Western U. Teleg. Co. v. New Hope, *supra*.

The contention is that the challenged statute is void on its face since it discloses that the fee charged the appellant is not imposed for, or limited by, the reasonable cost of supervision or regulation of its business; and, if this is not so, the case made in respect of the act's operation cast on the appellee the burden of proof, which it failed to carry.

The supreme court of the state based its decision in favor of the validity of the statute on two grounds: First, that the act is not unconstitutional on its face; secondly, that, as the answer denied the material allegations of the complaint concerning the operative effect of the act, the plaintiff had the burden of proof, which it failed to sustain; and, if the burden was shifted by the case made by the plaintiff, the evidence preponderated in favor of the defendant.

[4] *First.* The statute does not exhibit a failure reasonably to adjust the fee to the expense of the supervision and regulation of railroads. The legislation is to be accorded the presumption of fairness and regularity. It cannot be deduced from the provisions of the act that the amounts collected from the railroads grossly exceeded those

⁹ Brimmer v. Rebman (1891) 138 U. S. 78, 83, 34 L. ed. 862, 864, 11 S. Ct. 213, 3 Inters. Com. Rep. 485; Postal Teleg.-Cable Co. v. Taylor (1904) 192 U. S. 64, 48 L. ed. 342, 24 S. Ct. 208; Pure Oil Co. v. Minnesota, *supra*.

¹⁰ Atlantic & P. Teleg. Co. v. Philadelphia, *supra*; Postal Teleg.-Cable Co. v. Taylor, *supra*; D. E. Foote & Co. v. Stanley (1914) 232 U. S. 494, 503, 58 L. ed. 698, 701, 34 S. Ct. 377.

¹¹ D. E. Foote & Co. v. Stanley, *supra*; Lugo v. Suazo (1932) 59 F. (2d) 386.

¹² Western U. Teleg. Co. v. New Hope, *supra*; D. E. Foote & Co. v. Stanley, *supra*.

¹³ Postal Teleg.-Cable Co. v. New Hope (1904) 192 U. S. 55, 48 L. ed. 338, 24 S. Ct. 204; D. E. Foote & Co. v. Stanley, *supra*.

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

legitimately expended for inspection and regulation. The appellant insists that such is the necessary inference from the circumstance that the same fee is exacted from public utilities generally, and the collections go into a single fund and are indiscriminately disbursed for the many branches of the Department's work. But these facts, without more, do not prove that the amounts derived from the railroads are in excess of the legitimate expenses of inspection and regulation. It may be that, in spite of this lumping of receipts and expenditures, the fees paid by the railroads are no more than enough to defray such expenses. The court below was, therefore, justified in refusing to hold the statute void on its face.

[5] *Second.* The court thought the plaintiff had the burden of showing that the sums exacted from rail carriers substantially exceeded the amounts expended for regulation and supervision, and the proofs offered were insufficient to shift the burden to the defendant. This view was erroneous. *D. E. Foote & Co. v. Stanley, supra.*

In that case it appeared that the plaintiffs were packers of oysters taken from the waters of Maryland, Virginia, and New Jersey, and shipped to Baltimore. A statute of Maryland required that the oysters be inspected at Baltimore. It imposed a charge of one cent a bushel "to help defray the expenses of such inspection and the other expenses of the state fishery force, upon all oysters unloaded from vessels at the place where said oysters are to be no further shipped in bulk in vessels." The plaintiffs refused to pay the exaction and, upon threat of

enforcement, filed a bill in a state court for injunction alleging the fee was excessive, a burden on interstate commerce, and a violation of the constitutional provision that "no state shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws." The Maryland court of appeals affirmed a decree dismissing the bill and this court reversed its decision. The plaintiff asserted that as the act laid the fee for the expense of inspection, "and other expenses," it was obvious that the state had provided for the collection of more than was necessary for inspection. To this the state answered that the section levying the fee was but a part of an elaborate system of inspection imposed upon the state fishery force. It appeared from the evidence, as it does here, that the fishery force had duties other than those of inspection which were to be paid for out of the fund produced by the fees. This court said (p. 503 of 232 U. S.):

"But while the two duties may sometimes overlap, there is a difference between policing and inspection, and if the state imposes upon one set of officers the performance of the two duties and pays the whole or a part of the joint expenses out of inspection fees, it must be made to appear that such tax does not materially exceed the cost of inspection—the burden in such cases being on those seeking to collect the combined charge." And said further (p. 506):

"But the commingling of these various duties, paid for out of a fund raised for inspection, does not neces-

UNITED STATES SUPREME COURT

sarily show that the fee is excessive. For the presumption of invalidity arising from such intermingling might be met by carrying the burden of showing that, while the statute required payment out of such joint fund, the collections were not sufficient, but only helped, to pay the definitely ascertained expenses of inspection. The question of reasonableness, therefore, may be considered in the light of the practical operation of the law with a view of determining, with reasonable certainty, the permanent relation between the amount collected and the cost of inspecting."

The court examined the evidence as to the operation of a prior law which levied the same charge per bushel and which the challenged act superseded, consisting of the annual reports of the comptroller, and found therefrom that one-third of the amount collected was sufficient to pay the cost of inspection and the other two-thirds had been appropriated to "other expenses of the fishery force." In the light of the operation of the previous act, and the failure of the state to show that the amount collected under the new law would not be more than was necessary for the expenses of inspection proper, the challenged statute was held void.

There are factual distinctions between the cited case and the instant one, but they do not affect the binding authority of the former. The law under consideration in the D. E. Foote & Co. Case, *supra*, was purely an inspection measure. That here under review is characterized by the state court as one for regulation and inspection. The specific mandate of the Federal Constitution limiting state in-

spection fees to an amount absolutely necessary for executing a state's inspection laws was treated in the D. E. Foote & Co. Case as raising the same issue as was presented in earlier decisions with respect to the bearing of the commerce clause upon the imposition of regulatory and inspection fees imposed upon local property of interstate enterprises. And the cases decided under the commerce clause dealing with the reasonableness of regulation and inspection fees have been treated by this court as apposite to the guaranties of the Fourteenth Amendment. In the D. E. Foote & Co. Case reference to the accounts and records kept by state authority disclosed the extent of the excess of receipts over expenditures, whereas here it is demonstrated that while expenses other than those of inspection and regulation of railroads are paid out of the fees, the amount of the excess over what is necessary for regulation and inspection cannot be ascertained from the Department's accounts. The D. E. Foote & Co. Case is authority that in such circumstances the burden is on those seeking to collect the charge.

The state supreme court, after holding that the plaintiff failed to carry its burden, and that no duty of showing the amount necessary for inspection and regulation of railroads lay upon the defendant, proceeded to discuss the evidence and reached the conclusion that the proof preponderated in favor of the defendant. This conclusion was based upon the testimony of the Department auditor that he had found from memoranda furnished him, and data collected by him, what had been expended in connection

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

with railroads exceeded what they had paid. As already noted the appellant insists that this evidence was inadmissible and lacked value because hearsay.

The state court (184 Wash. 648, 657, 52 P. (2d) 1274) said:

"While the account kept by the auditor was not official, in the sense that, of itself, it was admissible in evidence, yet what the auditor did in that respect qualified him to testify as to the ultimate fact. Without further detailing the evidence, we will say that, in our opinion, and in so far as there was any evidence on the subject, it preponderated against the findings made by the court as to the cost of supervising and regulating railroads."

[6] Passing the appellant's contention that a Federal right may not be denied under the guise of the application of a state rule of evidence,¹⁴ we come to the question whether, when the asserted right has been denied, this court is concluded by a finding of fact or a mixed finding of law and fact made by the state court. We have repeatedly held that in such case we must examine the evidence to ascertain whether it supports the decision against the claim of Federal right. A recent exposition of the doctrine is found in *Norris v. Alabama* (1935) 294 U. S. 587, 79 L. ed. 1074, 55 S. Ct. 579, a case coming here from a state court, in which the appellant claimed that he had been de-

nied due process by the systematic and intentional exclusion of negroes from the jury lists. The state court held that the evidence did not establish such exclusion. This court reviewed the evidence, reached a conclusion contrary to that of the state court, and reversed the judgment. At pp. 589, 590, it was said:

"The question is of the application of this established principle to the facts disclosed by the record. That the question is one of fact does not relieve us of the duty to determine whether in truth a Federal right has been denied. When a Federal right has been specially set up and claimed in a state court, it is our province to inquire not merely whether it was denied in express terms but also whether it was denied in substance and effect. If this requires an examination of evidence, that examination must be made. Otherwise, review by this court would fail of its purpose in safeguarding constitutional rights. Thus, whenever a conclusion of law of a state court as to a Federal right and findings of fact are so intermingled that the latter control the former, it is incumbent upon us to analyze the facts in order that the appropriate enforcement of the Federal right may be assured."

In *Beidler v. South Carolina Tax Commission* (1930) 282 U. S. 1, 75 L. ed. 131, 51 S. Ct. 54, the validity of a state inheritance tax act was chal-

¹⁴ Compare *Mackay v. Dillon* (1846) 4 How. 421, 447, 11 L. ed. 1038, 1050; *Dower v. Richards* (1894) 151 U. S. 658, 667, 38 L. ed. 305, 308, 14 S. Ct. 452; *Cleveland, C. C. & St. L. R. Co. v. Backus* (1894) 154 U. S. 439, 443, 38 L. ed. 1041, 1044, 14 S. Ct. 1122, 4 Inters. Com. Rep. 677; *Cedar Rapids Gas Light Co. v. Cedar Rapids* (1912) 223 U. S. 655, 668, 56 L. ed. 594, 604, 32 S. Ct.

389; *Bailey v. Alabama* (1911) 219 U. S. 219, 239, 55 L. ed. 191, 200, 31 S. Ct. 145; *Central Vermont R. Co. v. White* (1915) 238 U. S. 507, 512, 59 L. ed. 1433, 1436, 35 S. Ct. 865, Ann. Cas. 1916B, 252, 9 N. C. C. A. 265; *Hill v. Smith* (1923) 260 U. S. 592, 594, 67 L. ed. 419, 422, 43 S. Ct. 219, 2 Am. Bankr. Rep. (N. S.) 537.

UNITED STATES SUPREME COURT

lenged in a state court, the claim being that the act operated to take property without due process if held to apply to property having no situs in the state. The state court held that intangible property, the transfer of which was sought to be taxed, had acquired a business situs in South Carolina. This court reexamined the question, in the light of the evidence, and overruled the state court's decision, saying (p. 8) :

"But a conclusion that debts have thus acquired a business situs must have evidence to support it, and it is our province to inquire whether there is such evidence when the inquiry is essential to the enforcement of a right suitably asserted under the Federal Constitution."

In *Johnson Oil Ref. Co. v. Oklahoma ex rel. Mitchell* (1933) 290 U. S. 158, 78 L. ed. 238, 54 S. Ct. 152, there was drawn in question the validity of ad valorem taxes laid under a state statute upon the entire fleet of the appellant's tank cars. It was charged that the cars did not have a situs within the state and there was, therefore, no jurisdiction to tax them. The supreme court of the state held that all the cars had their taxable situs within the state. This court examined the evidence, reached a contrary conclusion, and reversed the judgment, saying (pp. 159, 160) :

¹⁵ *Kansas City S. R. Co. v. C. H. Albers Commission Co.* (1912) 223 U. S. 573, 591, 56 L. ed. 556, 565, 32 S. Ct. 316; *Creswill v. Knights of Pythias* (1912) 225 U. S. 246, 261, 56 L. ed. 1074, 1080, 32 S. Ct. 822; *Northern P. R. Co. v. North Dakota ex rel. McCue*, 236 U. S. 585, 593, 59 L. ed. 735, 740, P.U.R. 1915C, 277, 35 S. Ct. 429, L.R.A. 1917F, 1148, Ann. Cas. 1916A, 1; *Interstate Amusement Co. v. Albert* (1916) 239 U. S. 560, 566, 60 L. ed. 439, 443, 36 S. Ct. 168; *Truax v. Corrigan* (1921) 257 U. S. 312, 324, 66 L. ed. 254, 259, 42 S. Ct. 124, 27

"As the asserted Federal right turns upon the determination of the question of situs, it is our province to analyze the facts in order to apply the law, and thus to ascertain whether the conclusion of the state court has adequate support in the evidence."

Citation of authority for the same principle might be multiplied indefinitely.¹⁵

[7] While holding the testimony of the Department auditor competent, the state court omits to refer to the fact that the figures he presented were not allocated so as to show the amounts spent for inspection and regulation and those expended for other so-called railroad charges which could not be imposed upon the railroads. As has been pointed out, the evidence is uncontradicted and conclusive that the sums he mentioned as having been expended for railroad account did include substantial, and apparently large, amounts for activities in the interest of interstate shippers and for the trial of reparation cases. It is impossible to sustain the state court's conclusion that such testimony had any probative value upon the sole issue in the cause, which was whether the statute subjects the railroads to an unreasonably excessive charge for inspection and regulation. As was said in the D. E. Foote & Co. Case, the state is at liberty to intermingle

A.L.R. 375; *Ward & Gow v. Krinsky* (1922) 259 U. S. 503, 511, 66 L. ed. 1033, 1036, 42 S. Ct. 529, 28 A.L.R. 1207; *Aetna Life Ins. Co. v. Dunken* (1924) 266 U. S. 389, 394, 69 L. ed. 342, 347, 45 S. Ct. 129; *Fiske v. Kansas* (1927) 274 U. S. 380, 385, 71 L. ed. 1108, 1110, 47 S. Ct. 655; *Ancient Egyptian Arabic Order v. Michaux* (1929) 279 U. S. 737, 745, 73 L. ed. 931, 936, 49 S. Ct. 485; *Consolidated Textile Corp. v. Gregory* (1933) 289 U. S. 85, 86, 77 L. ed. 1047, 1049, 53 S. Ct. 529.

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

duties involving costs properly chargeable to the railroads, with others involving costs not so chargeable, but if it does so, and the exaction is challenged, it must assume the burden of showing that the sums exacted from the appellant do not exceed what is reasonably needed for the service rendered. The state failed to carry this burden.

It results that the judgment must be reversed and the cause remanded for further proceedings not inconsistent with this opinion.

So ordered.

Mr. Justice CARDOZO, dissenting: To show that the revolving fund was used as a common pot for the regulation of public utilities generally, irrespective of their special function, does not make out a case of wrong to railroads considered as a separate class or to appellant in particular. For the purposes of this case there is no need to inquire whether anything in the Fourteenth Amendment forbids the recognition of a single and all-inclusive class of public service corporations without further subdivision. If the prohibition be assumed, still the burden is on the railroads to satisfy the court that what was contributed by them was more than what was expended for their account, since otherwise the common pot may have been a help and not a hurt. That burden was not discharged. Far from being discharged, there was a disclaimer of any attempt or purpose to discharge it. And so the case must fail. *Norfolk & W. R. Co. v. North Carolina ex rel. Maxwell* (1936) 297 U. S. 682, 688, 80 L. ed. 977, 982, 56 S. Ct. 625.

The decision in *D. E. Foote & Co. v. Stanley* (1914) 232 U. S. 494, 58 L. ed. 698, 34 S. Ct. 377, much relied on by appellant, is inapplicable here. That was a case under Art. 1, § 10, of the Constitution, which provides that "no state shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws." Maryland passed an act for the payment of charges, characterized as inspection fees, upon imports of oysters from neighboring states. The "inspectors" did more than inspect the oysters; they policed the waters of Chesapeake bay, being thus policemen as well as inspectors. On its face the act provided that a fee of one cent per bushel should be "levied to help pay the salary of the inspectors and the other expenses of the state fishery force." (232 U. S. at p. 505.) In these circumstances the ruling was that in a suit for an injunction brought by the importers the state had the burden of showing that the fee was not an unreasonable one for the service of inspection as distinguished from the other services covered thereby. Imposts upon interstate commerce being generally prohibited, and being lawful only when "absolutely necessary" for the purpose of inspection, a charge covering the service of inspection and also something else must collapse in its entirety unless the state is in a position to break it up into its elements. A power has been granted to be used in exceptional conditions. The state must bring itself within the exception if it seeks to act within the grant.

A very different situation confronts us in the case at hand. Here

UNITED STATES SUPREME COURT

the statute of the state does not trespass upon a field of legislation where entry is forbidden without the license of the nation. What has been done is well within the field of general legislative power, with every presumption of validity back of it. In such circumstances the burden of making good a claim of invalidity and thus establishing an exception is on the assailants of the rule, and not on its proponents. The conclusion becomes clearer when the statute is analyzed more closely. All that it does is to exact of public utilities generally (with particular exceptions) a fee of 1/10th of 1 per cent of their gross revenues, confined, however, to operations in intrastate commerce, the fee when collected to be paid into a revolving fund. Laws of Washington, 1929, Chap. 107; Laws of 1923, Chap. 107; Laws of 1921, Chap. 113. Another statute (Laws of Washington, 1929, Chap. 108) lays a heavier tax (1 per cent), to be paid into the same fund, upon the receipts of auto-transportation companies. Steamship companies of a stated class are subject to a special rule, the fee in their case being 1/5th of 1 per cent. Laws of Washington, 1927, Chap. 248. Plainly there is no presumption that these varying contributions are out of proportion to the expenses incurred in supervising and regulating the several classes of contributors. Illegality, if there is any, is to be found in the administration of the statute, and not in anything inherent in its essential scheme and framework. That being so, the taxpayer may not rest upon a showing of possible overpayment. There must be a showing of an overpayment not merely possible but actual, and one sub-

stantial in amount. *Norfolk & W. R. Co. v. North Carolina ex rel. Maxwell and D. E. Foote & Co. v. Stanley, supra.* To hold otherwise would be to go counter to the settled rule that "one who would strike down a state statute as obnoxious to the Federal Constitution must show that the alleged unconstitutional feature injures him." *Premier-Pabst Sales Co. v. Grosscup* (1936) 298 U. S. 226, 227, 80 L. ed. 1155, 1156, 56 S. Ct. 754. Analogies drawn from the law of trusts are inapposite and misleading. The state does not collect the taxes or place them in the fund as trustee for the contributor or for anyone else. It receives the moneys and expends them as an owner, charged with no other duty to a particular group of taxpayers than to members of the public generally.

The burden resting on the railroads to show that the use of the common pot has resulted to their damage, the record must be scrutinized to see whether the burden has been borne. In that scrutiny there is no denial of a duty to inquire whether the decision of the state court, irrespective of its surface protestations, amounts in substance and reality to the denial of a Federal right. *Norris v. Alabama* (1935) 294 U. S. 587, 589, 79 L. ed. 1074, 1076, 55 S. Ct. 579; *Beidler v. South Carolina Tax Commission, supra.* There is a recognition of the duty, and an endeavor to fulfil it.

1. The trial court suggested to counsel for appellant that it would be interesting to know whether the amount that had been collected through the tax upon the railroads was in excess of the amount expended for their benefit. Counsel responded

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

that he would not embark on that inquiry. His position was stated to be that the act was invalid on its face, in which event it would be vain to pursue the subject further. This court by its opinion has rejected that contention. The act is not invalid on its face, whether valid or invalid otherwise.

2. Explaining or at least supplementing the refusal to compare disbursements and receipts, counsel stated on the trial that there were no records available. But the contrary was clearly proved. The auditor of the Department of Public Works caused the employees of the Department to submit vouchers or slips descriptive of their services with an appropriate segregation and apportionment among the several classes of utilities. He testified on the basis of these reports, which were on file in his office, that disbursements for account of the railroads were in excess by \$37,833.14 of the railroads' contributions. Counsel for appellant expresses his belief that inspection and discovery of the contents of the vouchers would have yielded inadequate information. His business was to look and see.

3. The objection will not hold that the documents might be ignored for the reason that, if produced, they would be incompetent as evidence. Apart from the possibility of examining the men who made them, it is the law of the state of Washington, declared in this very case, that the slips and vouchers so filed in the course of the business of the bureau were sufficient to support the testimony of the auditor as to the conclusions to be drawn from them. Referring to that subject, the court said:

"While the account kept by the auditor was not official, in the sense that, of itself, it was admissible in evidence, yet what the auditor did in that respect qualified him to testify as to the ultimate fact. Without further detailing the evidence, we will say that, in our opinion, and in so far as there was any evidence on the subject, it preponderated against the findings made by the [trial] court as to the cost of supervising and regulating railroads." (184 Wash. 648, 657, 52 P. (2d) 1274.)

Whether the evidence thus accepted and relied upon would be rejected by other courts either as hearsay or on other grounds is quite beside the point. The Fourteenth Amendment does not confine the states to the common-law rules of evidence, however well established. *West v. Louisiana* (1904) 194 U. S. 258, 262, 48 L. ed. 965, 969, 24 S. Ct. 650; *Brown v. New Jersey* (1899) 175 U. S. 172, 174, 44 L. ed. 119, 120, 20 S. Ct. 77; *Twining v. New Jersey* (1908) 211 U. S. 78, 101, 53 L. ed. 97, 107, 29 S. Ct. 14; *Luria v. United States* (1913) 231 U. S. 9, 25, 58 L. ed. 101, 106, 34 S. Ct. 10. "The state is not tied down by any provision of the Federal Constitution to the practice and procedure which existed at the common law." *Brown v. New Jersey, supra*, at p. 175 of 175 U. S. The acceptance of the testimony of the auditor does not touch the privilege of confrontation in a prosecution for a crime. *Snyder v. Massachusetts* (1934) 291 U. S. 97, 106, 78 L. ed. 674, 678, 54 S. Ct. 330, 90 A.L.R. 575. It does not substitute hearsay for direct testimony generally or as to every possible issue arising

UNITED STATES SUPREME COURT

in a case. At most it is an enlargement of the common-law rule as to entries in books of account or in public or official documents. Cf. 3 Wigmore, *Ev.* § 1517 et seq.; § 1630 et seq.

Hearsay is competent evidence by the law of many enlightened countries. Stumberg, *Guide to the Law and Legal Literature of France*, pp. 148, 149; *Encyclopedia of the Social Sciences*, title, "Evidence"; vol. v., pp. 646, 647. Even at common law it is competent at certain times and for certain purposes, though narrowly restricted. 3 Wigmore, *Ev.* § 1420 et seq.; Thayer, *A Preliminary Treatise on Evidence at the Common Law*, p. 518. The range of its competence has been greatly enlarged by statutes in many of the states, as, e. g., in the administration of Workmen's Compensation Laws, and by the relaxation of ancient rules as to entries in accounts. Dodd, *Administration of Workmen's Compensation*, pp. 227-236; Wigmore, *Ev.*, Supp. 1934, §§ 1519, 1520; Morgan and others, *Evidence*, p. 51; New York Civil Practice Act, § 374a; cf. Massachusetts Bonding & Ins. Co. v. Norwich Pharmacal Co. (1927) 18 F. (2d) 934; Cub Fork Coal Co. v. Fairmont Glass Co. (1927) 19 F. (2d) 273; United States v. Cotter (1932) 60 F. (2d) 689. The question may be laid aside whether a change in the law of evidence might be so radical and unjust as to work a destruction of fundamental rights and thus a denial of due process. *Brown v. New Jersey*, *supra*. Assuming such a possibility, there is nothing in this ruling to make it a reality. If the legislature of Washington had passed

a statute to the effect that vouchers in a public office, filed by the employees at the bidding of a superior, should be *prima facie* evidence of the truth of their contents, it is not open to doubt that such a statute would be valid. It would not even involve an extreme departure from common-law analogies rooted in the presumption of official regularity. What a state may do in changing the rules of evidence through the action of its legislature, it may do with equal competence through the action of its judges, for anything to the contrary in the Constitution of the United States.

4. Appellant did not discharge its burden by proving in a vague way that some of the disbursements classified by the auditor as a charge against the railroads were incidental to proceedings conducted before the Interstate Commerce Commission or elsewhere for the benefit of private shippers and were not properly a part of the expense of local regulation.

The Attorney General takes the ground that disbursements from the revolving fund, if made for that purpose, were without authority of law. If that be so, they cannot avail to invalidate the statute, though they may lay the basis for a remedy in behalf of the state or others against the officers or agents guilty of unintentional misfeasance. Aside, however, from that objection, there was no attempt by appellant to prove the amount of these or like withdrawals in even the roughest fashion. There was no suggestion, much less evidence, that they would wipe out the excess of \$37,833.14 stated by the auditor. An inquiry directed to the point would have yielded in all likelihood an estimate at least

GREAT NORTHERN RAILWAY CO. v. STATE OF WASHINGTON

approximately correct. If such inquiry was inadequate, the slips and vouchers were available for scrutiny and dissection. Examination of the auditor in connection with the documents would have shown forth the truth.

The presumption of validity which sustains an act of legislation is unbroken by the evidence.

The Chief Justice, Mr. Justice Brandeis, and Mr. Justice Stone join in this opinion.

WISCONSIN PUBLIC SERVICE COMMISSION

Mrs. O. Eckman et al.

v.

The Milwaukee Electric Railway
& Light Company

[2-R-610.]

Discrimination, § 151 — Street railway fares — Rapid transit lines.

1. The class of service given by a local rapid transit line differs so markedly from that given on local city lines that there is no undue discrimination in the maintenance of different rate schedules when on the rapid transit line high-speed cars and interurban cars are operated, over a private right of way free from grade crossings and making few stops, at a higher cost than for service on local city lines, p. 490.

Rates, § 516 — Street railway — Weekly pass — Rapid transit line.

2. A street railway company operating high-speed cars over a private right of way, free from grade crossings and making few stops, on a rapid transit line, rendering such service at a higher cost than local city service, should not be required to extend the weekly pass system on its city lines to include the rapid transit line, p. 490.

[January 30, 1937.]

PETITION to require a street railway company to extend its weekly pass system to include a rapid transit line; petition denied.

By the COMMISSION: By petition filed November 10, 1936, Mrs. O. Eckman and 106 other residents of the city of Milwaukee request that

The Milwaukee Electric Railway and Light Company be required to extend its weekly pass system to include its rapid transit line for travel within the

WISCONSIN PUBLIC SERVICE COMMISSION

city fare zones. According to the Commission's records certain of the petitioners have been pressing this proposal with regard to fares, and others relating to service, on the company for approximately a year. Formal petition relating to the matter of fares only was filed with the Commission following refusal of the company to grant the use of the weekly pass.

Hearing in this matter was held in the county courthouse in Milwaukee, Wisconsin, on December 17, 1936. Leo P. Hojnacki, Assistant City Attorney, appeared for the city of Milwaukee, and Shaw, Muskat and Paulsen, by M. R. Paulsen, for The Milwaukee Electric Railway and Light Company.

[1, 2] The local rapid transit line extends from the Public Service building in the down-town business district of Milwaukee to West Junction a point a short distance beyond the west city limit of Milwaukee which it crosses at about 92nd street. The tracks are used also for interurban electric railway service between Milwaukee and Waukesha, Watertown, East Troy, and Burlington. The local rapid transit service is given in part by cars devoted exclusively to that service and in part by cars on the interurban runs. Except for a short distance the tracks are entirely on private right of way and are free from grade crossings. From the Public Service building and to 68th street, a distance of 4.5 miles, there are but five stopping points; to 84th street, 5.5 miles, but nine; and to West Junction, 7.4 miles, but fourteen. The private right of way without grade crossings and the few stops permit of the maintenance of high speed schedules. The running time

between the Public Service building and 84th street varies from sixteen minutes in rush hours to twelve minutes in nonrush hours. Approximately 80 per cent of the persons using the local rapid transit service get on, or off, the cars between 68th street and 84th street. An even higher per cent originate or terminate their rides at, or within three blocks of, the downtown terminus. From 53rd street to 70th street, a local city line occupies the same right of way as the rapid transit line but uses other tracks. At 70th street the local city line turns south for about a mile and then turning west again practically parallels the rapid transit line, at distances ranging from a mile to a mile and a half, out to 100th street where the two lines again meet at West Junction after the rapid transit line has turned south. Another city local line extends to the center of the city from a junction with the first city line at 70th street and W. Greenfield avenue. To the north another street car and auxiliary bus line parallels the rapid transit line, at a distance of approximately a half mile, from 53rd street to 84th street. On 84th street a north and south bus line crosses the rapid transit line and connects with both of the local lines mentioned.

The schedule of adult fares on the local city street car and bus lines is 10 cents cash fare, 6 tickets for 50 cents, and a \$1 unlimited weekly pass. Out to and including 84th street the rapid transit adult fare is 10 cents, and beyond it is 15 cents. The rapid transit fares entitle the rider to transfers to, or from, the local city lines. The holders of the local city line passes have to pay the full rapid transit fares

ECKMAN v. THE MILWAUKEE ELECTRIC RY. & LT. CO.

for transportation on the rapid transit line. The petition in this proceeding is that the local city line weekly passes be honored for transportation over the rapid transit line the same as they are over the local city lines.

In brief summary the testimony of numerous witnesses appearing in support of the petition is that the failure of the company to honor its local city line passes on the rapid transit line discriminates against the persons living in the territory, and especially that part of the territory west of 68th street, served by the line in that the local city line passes are honored out to the city limits, and even beyond, on lines serving other territories; that the enactment of the cash fares places a considerable burden on the residents of the territory served, in that it makes their transportation cost much higher than it would be if the passes could be used; that the extra burden curtails their opportunity for the enjoyment of school and other social activities; that the territory must depend to a very considerable extent on the rapid transit line for service in that access to local city lines is made difficult by the fact that many streets are not cut through and using the local city lines involves walks of undue length to reach them, and undue delays on account of infrequent service; that before the pass was inaugurated the local city lines fares applied on the rapid transit line out to 68th street when that was the city limit, and later to 84th street when the limit was moved to that point; that the line is considerable of a nuisance in that it blocks the opening of cross streets, and in the excessive noise of freight and fast interurban cars passing over

it which should be compensated in some manner; that the population of the territory served has greatly increased since the line was put in service; and that before the line was built the company promised the residents frequent service and a fare basis in keeping with that accorded other parts of the city.

On behalf of the company it is contended that the service given justifies the fares charged; that the service is clearly distinct from that given on any other line in the city in that special types of high speed cars are used which operating over a private right of way free from grade crossing with but few stops give service to the center of the city from the territory in which the petitioners reside of from a half to a third of the time required from the same territory on the local city lines; that leaving the rapid transit line out of consideration the territory in question receives treatment equal as regards distances between lines and frequency and speed of service to that accorded other parts of the city lying equal distances from the center of the city; that a large part of the territory beyond 68th street is not well built up; that the traffic on the line is light averaging on a 5-day test but fourteen passengers per one way trip, on week days, and but six on a Sunday; that the cost of giving the present local rapid transit service in question was for the year ended October 31, 1936, as the result of the light traffic almost three times as great as the revenue derived from it; that the entire rapid transit division, embracing in general all of the interurban lines of the company, earned practically no net revenue in that period,

WISCONSIN PUBLIC SERVICE COMMISSION

and the entire railway system, including all the urban lines also, earned an amount equal to a return on the investment of but 2.8 per cent.

The Commission finds that the class of service given by the local rapid transit line differs so markedly from that given on the local city lines that there is no undue discrimination in the maintenance of different rate schedules, and that considering all circumstances no undue burden or hardship is placed on the patrons of the

service by the continuation of the present fare schedule.

In accordance with these views the Commission finds that the extension of the weekly pass to the local rapid transit line of The Milwaukee Electric Railway and Light Company is not justified, and that the petition should accordingly be denied.

It is therefore ordered by the Public Service Commission of Wisconsin that the petition be, and the same hereby is, denied.

MICHIGAN PUBLIC UTILITIES COMMISSION

Re R. S. Bishop, Jr., et al.

[D-3023.]

Air carriers, § 1 — As common carriers.

1. The common-law definition of a common carrier applies to transportation of passengers or property by airplane, p. 493.

Corporations, § 11 — Incorporation — Air carrier — Commission approval.

2. Whenever articles of incorporation are broad enough to authorize an aircraft company to engage in the business of a common carrier by aircraft, the order of the Commission must be obtained, under Act 144, Public Acts 1909, before such articles are filed with the Corporation & Securities Commission or before any securities are issued by the company, p. 493.

Air carriers, § 1 — Commission jurisdiction.

Statement of inability to find any Michigan statute giving the Commission jurisdiction over corporations doing business as carriers of passengers or property by airplane unless in regard to the filing of articles and the issuance of securities; it appearing that regulatory jurisdiction over aircraft and aeronautics has been conferred upon the Michigan Board of Aeronautics, p. 494.

Public utilities, § 71 — What constitutes a common carrier.

Definition of a common carrier whether by land, water, or air, p. 495.

Public utilities, § 64.1 — What constitutes common carrier — Air carrier.

Statement that the fact that aircraft and the industry of carriage by aircraft are new is no reason why one in fact employing aircraft as a common

RE BISHOP

carrier vehicle should not be classified as a common carrier and charged with liability as such, p. 495.

[January 11, 1937.]

PETITION for authority to file articles of incorporation for an air carrier corporation; petition granted.

By the COMMISSION: On April 21, 1936, William A. Fellows and others filed with the Commission an application praying for authority to file articles of incorporation of Bishop Flying Service Inc., and for authority to issue capital stock of said corporation. A hearing was set on this application and due notice given and a hearing held thereon.

On November 4, 1936, the Commission received a request from the petitioner asking leave to withdraw said application and on said date an order was made and entered by the Commission dismissing the aforesaid application.

On January 4, 1937, a petition was filed by R. S. Bishop, Jr., Kenneth Aucompaugh, and Gordon Kilmer praying that the above matter be reopened and that authority to issue securities in the name of Bishop Flying Service, Inc., be granted.

On January 11, 1937, after due notice, a hearing was held on said petition, at which time the petitioners appeared by Van H. Stewart, counsel, and asked leave to file an original application for approval of securities and authority to file articles of incorporation of Bishop Flying Service Inc. with the Michigan Corporation & Securities Commission. Said leave being granted, the above-named R. S. Bishop, Jr., Kenneth Aucompaugh, and Gordon Kilmer thereupon filed

with the Commission an original application to which was attached a copy of the proposed articles, praying for authority to file said articles of incorporation with the Michigan Corporation & Securities Commission and for authority to issue 125 shares of common stock of said corporation of the par value of \$100 each, aggregating \$12,500, out of a total authorized capital of 500 shares of the par value of \$100 each, aggregating \$50,000.

The proposed articles state that one of the purposes of the corporation is "to carry for hire passengers and goods in said machines (airplanes)."

[1, 2] A preliminary question before the Commission is as to whether the Michigan law requires a corporation which seeks to engage in the business of transporting passengers or property by aircraft, to obtain the permission of this Commission in order to file its articles of incorporation or issue securities.

The Michigan "Blue Sky" Law, which requires a corporation to obtain the approval of the Michigan Corporation & Securities Commission before issuing securities, provides that it does not apply to "Any security issued . . . by a corporation owning or operating a railroad or any other public service utility: Provided, Such securities have been affirmatively passed upon by the Michigan Public Utilities Commission. . . ." Act

MICHIGAN PUBLIC UTILITIES COMMISSION

220, Public Acts 1933 (§ 9772 (d) Comp. Laws, 1929) as last amended by Act 37, Public Acts 1935.

Obviously, the question as to whether a corporation doing a business of transporting passengers and property by airplane comes within the above exception depends upon whether it is a "public service utility."

Act 144, Public Acts 1909 (§ 11077 et seq. Comp. Laws, 1929) is "An act to regulate the issuance of securities by persons, corporations, or associations owning, conducting, or operating *certain public utilities*." Section 1 of this act provides that any railroad, interurban railroad, or other common carrier in this state, before issuing any securities, must secure from the Michigan Public Utilities Commission an order authorizing such issue. Inasmuch as the right to file articles of incorporation with the Michigan Corporation & Securities Commission necessarily involves the right to issue the stock or securities of the corporation, it is apparent that the right to file articles of incorporation of public utilities which come within the purview of Act 144, Public Acts 1909 (including common carriers), depends upon having obtained such authority from this Commission under said Act 144.

This state has no statute expressly declaring carriers of passengers or property by airplane to be common carriers. We have various statutes defining and regulating *common carriers* and giving this Commission jurisdiction over them, such as railroads (Act 300, Public Acts 1909, § 11018 et seq. Comp. Laws, 1929), carriers by water (Act 246, Public Acts 1921,

§ 11071 et seq. Comp. Laws, 1929), bridge or tunnel companies (Act 198, Public Acts 1873, § 11110 et seq. Comp. Laws, 1929), street railway companies (Act 35, Public Acts 1867, § 11292 et seq. Comp. Laws, 1929), carriers by motor vehicle (Act 254, Public Acts 1933), electric interurban railroads (Act 115, Public Acts 1921, § 11484 et seq. Comp. Laws, 1929).

Various other corporations have been declared to be *public service utilities* or *public utilities* and within the regulation of this Commission, for example, electric light and power companies (Act 106, Public Acts 1909, § 11093 et seq. Comp. Laws, 1929), natural gas pipe-line companies (Act 9, Public Acts 1929, § 11632 et seq. Comp. Laws, 1929), petroleum pipe-line companies (Act 16, Public Acts 1929, § 11652 et seq. Comp. Laws, 1929), telephone companies (Act 206, Public Acts 1913, § 11700 Comp. Laws, 1929).

We are unable to find any statute giving the Commission jurisdiction over corporations doing business as carriers of passengers or property by airplane unless in regard to the filing of articles and the issuance of securities. In this state regulatory jurisdiction over aircraft and aeronautics has been conferred upon the Michigan Board of Aeronautics. Acts 53 and 63, Public Acts of 1931.

This Commission early took the position that the filing of articles and issuance of securities by common carriers of passengers or property by airplane, came within the provisions of Act 144, Public Acts 1909, and therefore under the jurisdiction of this Commission. See *Re Air Taxi Serv-*

RE BISHOP

ice, P.U.R.1927D, 279; *Re S. K. F. Air Service*, D-2348, June 21, 1928; *Re Lovejoy School of Aviation*, D-2346, June 22, 1928.

A *common carrier*, whether by land, water, or air, is one who has held out that he will, so long as he has room, carry for hire all persons applying, or the goods of every person who will bring goods to him to be carried. This was held in approving the language of an early English case defining a common carrier, in *North American Accident Ins. Co. v. Pitts* (1925) 213 Ala. 102, 104 So. 21, 40 A.L.R. 1171; *Smith v. O'Donnell* (1932) 215 Cal. 714, 12 P. (2d) 933.

A common carrier of passengers is one who undertakes for hire to carry all persons indifferently who may apply for passage, so long as there is room and there is no legal excuse for refusing.

That aircraft and the industry of carriage by aircraft are new is no reason why one in fact employing aircraft as a common carrier vehicle should not be classified as a common carrier and charged with liability as such. *Smith v. O'Donnell, supra*.

It has also been held that one engaged in taking passengers for a short flight of about ten minutes was not a common carrier as applied to that particular ride. *Seaman v. Curtiss Flying Service* (N. Y. Sup. Ct. 1929) U. S. Av. Rep. 48 (reversed on other grounds [1930]) 231 App. Div. 867, 247 N. Y. Supp. 251.

To the same effect was *Stoll v. Curtiss Flying Service* (N. Y. Sup. Ct. 1930) U. S. Av. Rep. 148; *Conklin v. Curtiss Flying Service* (N. J. Sup. Ct. 1930) U. S. Av. Rep. 188; *Brown*

v. *Pacific Mut. Life Ins. Co.* (1925) 8 F. (2d) 996. This case held that one who engaged in taking passengers on pleasure trips at a summer resort, lasting about ten minutes, returning to the point from which the plane started, operating at such times and under such conditions as the aviator desired, was not a common carrier.

We are of the opinion that the common-law definition of a common carrier applies to transportation of passengers or property by airplane, in this state. The question as to whether or not a particular method of operation brings the business within the definition of a common carrier obviously depends upon the facts in each case. However, where a corporation desires to file articles or engage in the business of transporting passengers or property for hire by airplane in Michigan, and the purposes of incorporation are thus broadly stated in substance in the articles, it would seem that such articles would be broad enough to allow the corporation to engage in the business of a *common carrier* of passengers or property by airplane. Under such circumstances the subsequent method of operation which might be adopted or followed by the corporation is immaterial. We are of the opinion that whenever the articles of incorporation are broad enough to authorize the company to engage in the business of a common carrier by aircraft, the order of this Commission must be obtained under Act 144, Public Acts 1909, before such articles are filed with the Corporation & Securities Commission, or before any securities are issued by the company.

The Commission having considered the records and files and the testimony

MICHIGAN PUBLIC UTILITIES COMMISSION

taken in this matter as aforesaid finds as follows:

1. That said R. S. Bishop, Jr., Kenneth Aucompaugh, and Gordon Kilmer are organizing a corporation to be known as Bishop Flying Service Inc. for the purpose, among others, of engaging in the business of carrying passengers and goods for hire by airplane, whereby said corporation will be authorized to engage in the business of a common carrier of passengers and property for hire by airplane; that the authorized capital stock of said corporation is to be 500 shares of common stock of the par value of \$100 per share, aggregating \$50,000; that said petitioners desire authority to file said articles of incorporation in the office of the Michigan Corporation & Securities Commission; and that said petitioners pray for authority to issue 125 shares of said capital stock in the total amount of \$12,500.

2. That said amount of \$12,500 capital stock has been subscribed for and is to be issued for equipment, with the exception of \$500, which is to be issued for working capital; that said 125 shares of stock is to be issued for

and in payment of such equipment and for working capital; that the equipment taken over at \$12,000 is fairly worth that amount and that it is proper that 125 shares of such stock be issued in payment for said equipment to the persons transferring the same to the corporation and for \$500 working capital.

3. That in the opinion of the Commission the property and money to be acquired and to be secured by the issuance of said 125 shares of capital stock of the corporation is reasonably required for and essential to the corporate purposes of said corporation.

4. That none of said stock is to be given or issued to any person or corporation as a bonus or gratuity and that none of said stock is to be offered for sale or sold to the public, but is only to be sold to the above-named incorporators for equipment and cash.

5. That the applicants have paid into the treasury of the state of Michigan the sum of \$50, being the fee required under the provisions of Act 419, Public Acts of Michigan for 1919, and have filed the receipt of the state treasurer therefor.

Industrial Progress

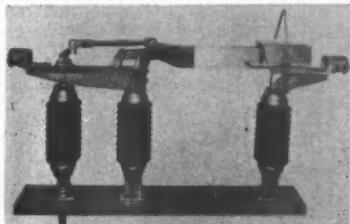
Utilities Increase Purchases

INCREASING expenditures for heavy electrical equipment by utilities and continued high level of light electrical equipment sales point to a favorable outlook for the electrical equipment industry, according to a recent analysis of 28 major industrial groups.

Delta-Star Pole Top Switch

WERE air break switches always easily accessible for adjustment and maintenance, design would be a relatively simple matter—but usually mounted high in the air the designers' problem is to so build that switches will stay in adjustment for long periods without attention.

In the switch pictured (manufactured by the Delta-Star Electric Company, Chicago, Ill.),



2000 Ampere 34.5 K.V. Switch

the blade operating mechanism is so made that after the initial setting is made the levers and linkages are securely locked and any future adjustments for blade position are confined to the interconnecting steel pipes underneath the mounting bases, far removed from the switch unit itself.

These operating pipes are equipped with drop-forged clamp fittings, in turn equipped with piercing type set screws which, after final switch adjustments, are turned down until they punch holes in the pipes forming absolute locking points preventing slippage.

With this arrangement the blades permanently stay in adjustment in relation to each other and the possibility of one blade of a three pole switch under or over traveling in relation to the others is eliminated.

Booklet About Vitrolite

THE Libbey-Owens-Ford Glass Company, Vitrolite Division, Chicago, Illinois, has issued a 16-page illustrated booklet, 8½ by 11 inches, describing Vitrolite store fronts and building exteriors. The booklet points out that

the requirements of this modern age, particularly the keenness of competition and new ideals of service augmented by the many new resources in metals, illumination, and surfacing materials, have brought about a new type of store front and a period of renewed activity in store front construction.

Construction methods for Vitrolite are explained and 9 full-page plates illustrate the details of proper construction and suggest design effects for each part of the store front or building exterior. One of the most notable examples of the use of Vitrolite for building exteriors is the new home of the Syracuse Lighting Company in Syracuse, New York. This building has been termed the finest structure of the Niagara-Hudson Utility System.

Copies of the booklet may be obtained from the manufacturer.

New Generating Unit

A 3,000 kilowatt electric generating unit and new boiler equipment are being installed at the Grand Forks, North Dakota, plant of Northern States Power Company. This new equipment will increase the electric generating capacity of the Grand Forks plant to 8,975 kilowatts.

G-E Recording Instruments

A NEW 32-page, 8½ by 11 inches, catalogue describes some of the more important new improvements that have been made in General Electric Company's complete line of portable and switchboard Type CD strip-chart recording instruments for alternating and direct current. Type CD instruments are primarily designed to record accurately actual circuit conditions existing at a definite time. Their application in the public utility industry includes: central stations (generator and control panels to record voltage, load, and circuit conditions); substations (recording of voltage and load conditions); distribution circuits (general testing and trouble investigation). Voltage and load surveys.

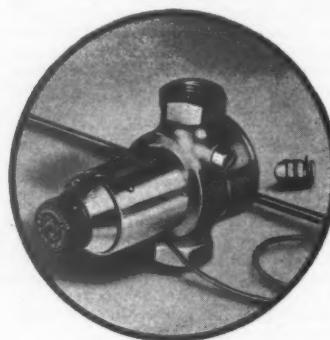
Robertshaw's Heat Control for Steam Tables

ROBERTSHAW Thermostat Co., Youngwood, Pa., has developed an improved line of thermostats for steam tables. These controls are said to be extremely accurate and easy to install in new steam tables, as well as those already in use. Considerable savings in fuel and food are possible with the use of these new thermostats, the company claims.

The steam table is recognized as being one of the most important items of kitchen equip-

ment, for upon it depends the customer's final opinion of the quality of food and service. It is also decidedly important from an operating standpoint because a great deal of money in food and fuel bills can be wasted at this point in hotel or restaurant operation.

While steam table temperature may vary according to conditions, there is a very definite degree of heat that will produce the best re-



Heat Control Unit

sults. If the temperature is permitted to rise above this degree fuel is wasted and the food is overcooked, thus losing flavor and resulting in spoilage.

The balance between proper and improper temperature is a delicate one, impossible to maintain by manual operation which depends upon guesswork. A few degrees one way or another means that the food becomes cold or over-cooked. In most cases, the latter condition prevails because the prevailing method of most kitchen help is to keep the steam table steaming, which means the water is 212 degrees and the food is cooking. This is obviously wrong, the Robertshaw Co. points out.

\$4,000,000 for Expansion

VIRGINIA Electric & Power Company is considering a \$4,000,000 construction program for 1938, according to J. G. Holtzclaw, president.

The company's electric department is serving an all-time high of 134,645 customers.

Sales Promotion Chief Topic for Electric Convention

SALES promotion will be the dominating theme of the Fifth Annual Convention of the Edison Electric Institute, to be held in Chicago, June 1st to 4th. The first session will be given over entirely to the commercial opportunities of the industry. However, the program as a whole will be well diversified.

Subjects relating to merchandising that will be discussed by authorities in their fields include air conditioning, kitchen planning in the new building boom, off-peak water heating, better light—better sight, winning the public

MAY 13, 1937

through sales efforts, appliance servicing costs, new products and new developments in equipment and appliances, the manufacturer's stake in the utility business and rural electrification.

Among other subjects, papers will be presented on experiences with inter-connection, opportunities for young men in the utility business; accident prevention; law-making by commissions and government and business,

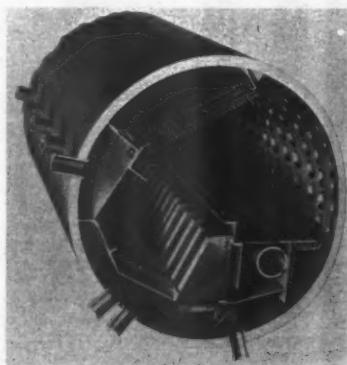
Westinghouse Awarded Contract

ACCORDING to a recent report, The Westinghouse Electric and Manufacturing Company has been awarded an Interior Department contract to install two large oil circuit breakers and lightning arrester equipment in the Boulder Dam power house.

Combustion Engineering Company Develops New Washer

A STEAM washer has been developed by Combustion Engineering Company, Inc., New York, which functions on the principle of removing entrained solids from the steam by forcing it to bubble through clean feed water. This washer has been subjected to long and extensive tests under regular operating conditions in one of the large power stations, and as a result of the satisfactory performance a number of subsequent installations have been made.

Referring to the illustration, the feedwater enters the trough at the lower left through the

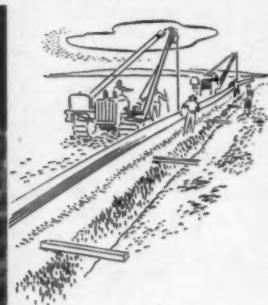


Bubble-Type Steam Washer

longitudinal perforated pipe and spills over the notched weir. Mounted over the trough are a series of compartments, or hoods, open at the bottom and left and having perforations near the bottom of the side walls. These hoods are joined together by plates at the left and over them is bolted a continuous plate which extends to the top of the drum. Thus the steam entering the drum through the tubes at the left is compelled to pass into the hoods and out through the apertures, and bubbles through the feedwater, in which operation the entrained solids are removed. The actual wash

PROVED

by years of dependable service in gas lines . . .



REPUBLIC

ELECTRIC WELD LINE PIPE

NOTE THESE FEATURES

100% Perfect Weld . . . Uniform Wall Thick-

. . . Uniform Diameter . . . Perfectly Round

Straight . . . Easy to Weld . . . Easy to

Install . . . Free from Scale Inside and Out . . .

Desired Yield Point with High Ductility

Double Lengths without Mid-Weld.

Write for complete detailed information.

MORE THAN 8000 MILES IN SERVICE

Writing Republic Steel Corporation (or Steel and Tubes, Inc.) for further information, please address Department PF.

HIGH
YIELD POINT
WITH HIGH
DUCTILITY

Look to Republic for all your piping requirements—casing, tubing, drive pipe and line pipe—steel, copper-bearing steel and rust-resisting Toucan Copper Molybdenum Iron in butt weld, lap weld and electric weld pipe. Write for detailed information.

Republic Steel
CORPORATION

GENERAL OFFICES . . . CLEVELAND, OHIO

ing of the steam is obtained not alone by bubbling through the water but also by the violent mixing of steam and water between the elements as created by the velocity of steam through the perforations. The construction is such as to prevent co-mingling of the feed-water with the water in the drum. The screen at the right is for the removal of moisture that may be carried along with the steam.

The washer is so located as to leave space for ready access for cleaning without removing it from the drum. However, should it be desired for any reason to remove the washer this may be readily done in sections, as the parts are bolted together.

New G-E Circuit Breaker

A NEW oil blast circuit breaker, the Type FK-45, with 75,000 kv-a interrupting rating has been announced by the General Electric Company.

The FK-45 unit is a non-oil-throwing breaker with plate steel rectangular tank with separating chamber, internal mechanism, silver-to-silver main contacts, easily renewable arcing contacts, oil blast baffles, and Herkolite bushings. It is available in three current sizes, 600, 1200 and 2000 amperes.

A feature of the new breaker is its sturdy tank construction which makes it especially applicable where heavy duty and small space requirements are desired. The silver-to-silver main contacts and easily renewable butt-type arcing contacts with their massive and unusually strong construction make this breaker applicable for the hardest type of service. A noteworthy feature of the arcing contacts is the unit assembly of the stationary contacts with block and springs. This design aids in quick replacement with very little labor and lost time involved.

SAE Meeting Aids Utility Fleet Operators

MOTOR vehicle operating problems of the public utility industry were studied and discussed at the Regional Transportation and Maintenance Meeting of the Society of Automatic Engineers held recently in Baltimore. This was the first SAE meeting of this kind to be devoted to one industry. Though termed a regional meeting, public utility fleet operators from 19 states and Canada were among the 250 engineers and executives who attended. Four technical sessions, a safety luncheon, and a utilities dinner made up the 2-day program.

J. G. Holtzclaw, president of the Virginia Electric & Power Company, spoke at the utilities dinner on "How the SAE Can Be Helpful to Public Utility Operators." One of the utilities' biggest jobs, he said, is to operate motor vehicles and he pointed out the opportunity for cooperation between the manufacturer and the utility fleet operator. The manufacturer, Mr. Holtzclaw said, develops his theories and gives the fleet operator something

MAY 13, 1937

to work with, while the utility operator in return provides the manufacturer with a proving ground to test out his theories. The importance of the public utility fleet supervisor's job was emphasized by John A. C. Warner, SAE secretary and general manager.

John M. Orr, SAE vice president, who termed this public utility fleet meeting "an extremely successful experiment," presided at the opening session. Among others actively participating in the various sessions were: Adrian Hughes and E. J. Fraser, Baltimore Transit Co.; Prof. James I. Clover, Virginia Polytechnic Institute; F. K. Glynn and T. C. Smith, American Telephone & Telegraph Co.; E. W. Jahn, Consolidated Gas, Electric Light and Power Co., Baltimore; Robert Cass, White Motor Co.; J. R. North, Commonwealth & Southern Corp.; Capt. O. A. Axelson and F. R. Flahive, Columbia Gas & Electric Corp.; H. O. Mathews, Public Utility Engineering & Service Corp.; Jean Y. Ray, Virginia Electric & Power Co.; J. H. Mack, Fargo Motor Corp.; A. J. Scaife, Autocar Co.; W. R. Pollard, Georgia Power Co.; J. W. Lord, Atlantic Refining Co.; John White, Mack Trucks; J. R. Sherwood, Baltimore Safety Council; B. J. Lemon, U. S. Rubber Co., and A. W. Morton, American Hammered Piston Ring Division of the Koppers Co.

Photoelectrically Balanced Potentiometer

THE C. J. Tagliaue Mfg. Company, Brooklyn, New York, has announced the "Celectray" recorder. It is claimed that the new instrument is noteworthy for its extreme sim-



"Celectray" Recorder

plicity, accuracy, and speed, particularly in the multiple point recorders. The average speed of the multiple point instrument is less than 15 seconds per point and the accuracy is guaranteed to 0.1 per cent.

In this radically new type of recorder, a sensitive mirror galvanometer is the primary controlling element in which an inertialess beam of light takes the place of the customary metal boom or pointer. The beam of light from the galvanometer in moving on and off a phototube passes the "controlling edge" of a screen, thus operating relays which in turn control a reversing motor which drives



**CONTROL CABLE
DROP CABLE
LEAD COVERED CABLE
MAGNET WIRE
PARKWAY CABLE
RUBBER POWER CABLE
SERVICE ENTRANCE
CABLE
SIGNAL CABLE
VARNISHED CAMBRIC
CABLE
WEATHERPROOF WIRE**

CRESCENT

INSULATED WIRE & CABLE CO. INC.

TRENTON, NEW JERSEY

All types of Building Wire and all kinds of Special Cables to meet A.S.T.M., A.R.A., I.P.C.E.A., and all Railroad, Government and Utility Companies' Specifications.

the moving contact of the Wheatstone bridge or potentiometer. The phototube is not a calibrated element but serves only to detect the direction of the light-beam and bring the galvanometer to zero deflection, according to the well-known null method of balancing an electric circuit. The new instrument, therefore, is not a "photoelectric potentiometer" in the sense that a balance of photoelectric current is implied.

New Elliott Bulletins

ELLIOTT Company, Jeannette, Pa., has just published the first two bulletins (Nos. M-1 and M-2) in a series covering a new line of electric heaters and heating equipment specially designed for the process industries.

Bulletin M-1 covers the indirect electric system for industrial heating by hot circulating oil, the indirect heater using high temperature vapor, special immersion type heaters for large scale operations in existing stills, etc., and special tubular heaters built for obtaining temperatures up to 2000°F. and pressures of 1500 lb. or more.

Bulletin M-2 covers the Elliott Continuous deodorizing system for edible and industrial oils, using electric heaters.

Copies of these bulletins may be secured from the Elliott Company.

Ingersoll-Rand Announces a New 55 Lb. Jackhamer

INGERSOLL-Rand has recently introduced a new fifty-five pound Jackhamer called the JA-55. This machine, a big brother to the JA-30 and JA-45 Jackhamers, is a hard hitting, fast drilling tool designed especially for harder rock and deeper holes.

It is especially suitable for mine, quarry and contract work. Having a low air consumption, because of an improved valve design, it is very popular for use with portable air compressors and where the air supply is limited.

More information on the JA-55 will be found in Form 2337. Copies may be secured from any of the company's offices.

Steel Company Issues New Bulletin

THE Pittsburgh-Des Moines Steel Company, 3454 Neville Island, Pittsburgh Pa., announce the publication of a new bulletin (No. 502) describing steel tanks, bins and plate fabrication. Replete with photographic illustrations featuring interesting examples of elevated steel tanks, elevated bins and general plate fabrication, the new brochure also contains numerous handy tables on weights of materials and volume capacities of popular type bin designs. Copies of this informative brochure may be obtained from the manufacturer.

MAY 13, 1937

Indiana General Service to Install New Equipment

INDIANA General Service Company, Muncie, will increase the capacity of their Delaware substation by installing new equipment within the next four or five months, according to a recent announcement. The estimated cost of the equipment is \$371,000. The present capacity of the substation is 50,000 h.p., and the new equipment will increase the capacity to 100,000 h.p.

New Lamp Sales Headquarters For Hygrade Sylvania

HYGRADE Sylvania Corporation announces that their lamp sales executive headquarters will be located at 10 Post Office Square Building, Boston, Massachusetts.

Koppers Company Awarded Two Contracts

CONTRACTS for the remodeling and modernization of two liquid purification plants have been awarded to Koppers Company's Engineering and Construction Division.

The purification plant of the Hudson Valley Fuel Corporation at its coke oven gas plant in Troy, N. Y., will be changed over to the Koppers-Thylox process from the Koppers-Seaboard process. Capacity will be increased from 18,000,000 to 24,000,000 cubic feet a day.

The Rochester Gas and Electric Corporation's Koppers-Thylox plant at its coke oven and water gas generating station in Rochester, N. Y., will be modernized. This equipment has a capacity of 20,000,000 cubic feet a day.

For Your Information

STATIC ELECTRICITY. Safe practices Pamphlet No. 52. Published by National Safety Council, Inc., 20 North Wacker Drive, Chicago, Illinois. 16 pages, 8½ by 11 inches, 8 illustrations, 1 chart, 25 cents per copy, quantity discounts upon request.

This pamphlet, like others issued by the Council, is based on the accident prevention experience of a number of employers. However, it should not be assumed that every acceptable safety procedure is contained therein. The pamphlet should not be confused with Federal, state, or insurance requirements, nor with national safety codes.

Because static electricity during recent years has been discovered to be the cause of many serious fires and explosions, this pamphlet explains and describes practical methods of eliminating static or guarding against its dangers.

Various posters on fire prevention prepared and made available by the National Safety Council are illustrated.

PENNSYLVANIA
TRANSFORMERS

Are your distribution transformers of the CLOSED COIL or OPEN COIL type?

- For the benefit of those who are not familiar with the two types of construction, we will describe them briefly:
- A distribution transformer coil consists of many turns of wire, which are usually wound helically on concentric layers. In the closed type many such layers are wound tightly together with only solid insulation between them. As distinguished from this consider the OPEN COIL, a Pennsylvania development:
- Every layer of winding is separated from the adjacent one by vertical spacers as well as solid insulation. These spacers form vertical ducts adjacent to each layer of winding (hence the name, OPEN COIL). The ducts permit treatment of coils in varnish, instead of compound. During the treating process air is circulated through the ducts . . . and the varnish is thereby oxidized and hardened. A COIL SO TREATED IS NEVER SOFTENED BY HOT OIL, and retains its full electrical and mechanical strength under the heaviest overloads.

1 This truly important Pennsylvania development deserves the attention of utility executives interested in more reliable, economical power distribution.

**Pennsylvania Transformer Co.
1701 Island Avenue, N. S., Pittsburgh, Pa.**



This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

**PIPE
STOPPERS**



**All Types
PIPE LINE SUPPLIES**

Goodman Stoppers
Gardner-Goodman Stoppers
Goodman-Peden Stoppers
Goodman Cylindrical Stoppers
Bags—Rubber, Canvas Covered
Plugs, Service & Expansion
Pumps
Masks
Brushes
Tape—Soap & Binding

Catalogue mailed on request.

SAFETY GAS MAIN STOPPER CO.
523 Atlantic Avenue
Brooklyn, New York

Use the HAYS
TO HOOK-UP
EFFICIENTLY

More than
400
Styles and
Sizes



APPROVED BY
UNDERWRITERS
LABORATORIES

DAVEY LINE CLEARING SERVICE
Trees are Now Growing Rapidly

This is the season of rank, new, vigorous tree growth. Unless the trees along your lines have been trimmed recently, you are going to be confronted with:

- New Interference
- Interrupted Service
- Trouble

If you are apprehensive, it may be well to anticipate these difficulties now, and to provide for their correction before serious trouble develops.

Davey Tree Experts are available on call. They cover the country. You can get them quickly. And they have the experience and training that insures fine work.

THE DAVEY TREE EXPERT CO.

KENT, OHIO

DAVEY TREE EXPERTS

COPPER METHOD
Modern APPLIANCES
and ECONOMICALLY

WHEN you use Double Seals you get double tight connections. Note how the 2 flared ends of the tubing fits snugly over the machined seats of the fitting to make mechanically strong copper tube connections. Each Double Seal joint is a union joint and only Hays Double Seals tie in 100% with iron pipe.

wide selection of styles and sizes. Connect appliances, instruments; install water and gas service lines and use the Hays Copper Plumbing Method for general utility work. Tested under severe stresses and approved by Underwriters Laboratories. Send details.

HAYS MFG. CO.



ERIE, PENN.

Specify HAYS DOUBLE SEAL

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



1937 "TRI-POWERED" PROGRAM

DRIVES FRIGIDAIRE SALES STILL HIGHER

Public utilities are again smashing all records with Frigidaire!

They are cashing in on the 1937 leadership they have in product, sales plans, and advertising!

Services for complete home refrigeration, and proves it!

LEADERSHIP IN PRODUCT! *Unchallenged* is the "Super-Duty" Frigidaire! With the Meter-Mer! With the patented Instant Cube-Release! With the 9-Way Adjustable Interior! With the scores of features that make it the most salable refrigerator "package" ever known.

LEADERSHIP IN ADVERTISING! *Unsurpassed* in appeal to refrigerator buyers is Frigidaire's dramatic presentation in word and picture. Sales-compelling advertising intensified by a greatly enlarged schedule of national magazines and local newspapers. National advertising with a *local* wallop . . . going direct to the largest number of families ever reached by a refrigerator manufacturer's national campaign!

LEADERSHIP IN PLANS! *Unequalled* are the Frigidaire selling plans that crowd showrooms with refrigerator buyers! All anxious to the new "Super-Duty" Frigidaire that provides ALL 5 Basic

FRIGIDAIRE DIVISION
General Motors Sales Corporation
Dayton, Ohio



YOU CAN DO STILL BETTER WITH FRIGIDAIRE IN '37!

WHEN YOUR MACHINE WAS JUST A PIECE OF PAPER

Its Lubrication was as carefully planned as its size, weight and balance . . . and the chances are 4 to 1 that Socony-Vacuum Lubricants were approved for its use!

It Pays to plan the Lubrication of your entire Plant on a truly scientific basis

WHEN THE MACHINES in your plant are planned . . . chances are that Socony-Vacuum engineers "sit-in." And very likely Gargoyle Lubricants are recommended for their efficient lubrication.

Here are good reasons why 80% of America's machinery builders approve the oils and greases trade-marked with the Red Gargoyle: they offer power savings, decreased maintenance, improved pro-

duction, lower annual oil bills.

110 different industries — standardize on Gargoyle Lubricants. Their reasons: better machine efficiency and savings in plant operating costs.

Encourage your staff to co-operate with Socony-Vacuum Engineers. You will find it a source of profitable economies.

SEND FOR THE SOCONY-VACUUM MAN:

Services of trained Socony-Vacuum Engineers are available at all times in helping your men to solve lubrication problems.

SOCONY-VACUUM

INDUSTRIAL LUBRICATION



SAVES
MONEY
FOR
INDUS

71 Years' Lubrication Experience—the Greatest in the Business

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Executive Days Run More Smoothly

Dictaphone smoothes out an executive's day by absorbing numerous routine details such as memos, instructions and conferences. It allows the executive additional time for creative planning and for real executive management.

You will be amazed at how a Dictaphone helps you get your work done more smoothly, more accurately, more resultfully. Men and their secretaries work independently of each other's time and convenience. Let us prove to you, without obligation, how Dictaphone can improve production and lower costs in your office.

DICTAPHONE

Reg. U. S. Pat. Off.

Dictaphone Sales Corp.

420 Lexington Avenue
New York City

CONSTANT SERVICE

This combined meter box and service switch is built to give constant service under the toughest weather conditions.

Aluminum or rust-proofed steel . . . fused pullout switch . . . special weatherproof door . . . plenty wiring space . . . any desired knockouts.

*Write today
for complete information*



Series 95

**WALKER ELECTRICAL COMPANY
ATLANTA GEORGIA**

RAY-O-VAC

Dependable service—long hours of it—on and off—off and on! Utilities put flashlights and batteries to the severest tests, but Ray-O-Vac industrial flashlights and batteries have proven they can take it. That's why each year more and more utilities specify "Ray-O-Vac".



Pictured here, the famous guaranteed foolproof Rotomatic Switch—exclusively a Ray-O-Vac feature.

RAY-O-VAC COMPANY

Formerly FRENCH BATTERY COMPANY
MAIN OFFICES and PLANT — MADISON, WISCONSIN
Additional Facilities at Clinton, Massachusetts, Lancaster, Ohio

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Business

Success— is also a "MUST"!

THE heftiest problem that harries the thoughtful American business man is the responsibility to be successful.

If he fails in that basic duty everything else in the business picture becomes academic detail.

You can't blink the fact—his success is a "must" for your sake, as well as his own.

Why? Because only a business that takes in more than it pays out can hope to keep going and meet payrolls.

And only a going business can support the flock of other businesses that depend on it for orders to keep their men and machines going.

Finally, only a successful business has the surplus money it takes to work out improvements in products and values which insure future jobs.

During depression, only those companies fortified by success are able to carry employees by dipping into reserves built up during prosperous times.

The extent to which American private enterprise did dip into reserves during 1930-34—totals by latest estimate some \$26,600,000,000.

That's the amount paid out, over and above income, to keep plants going and men at work.

In other words, *industry voluntarily contributed more than twice what the Government spent for "priming the pump"*—not to mention the fact that business *earned* its money, whereas Government money comes from borrowing and taxes.

This shows in cold-turkey figures why business success is a "must."

So also does the illuminating fact that 40,000,000 stockholders and their dependents have a stake in and directly benefit from ownership in American business.

All of these people—all the millions of gainfully employed—all Americans including



The success of his business and the way it affects his employees, his stockholders, his customers, is constantly on his mind.

yourself, no matter where you live, what you work or how you do it—have not merely a casual but an acute meal-time interest in seeing business in this country go ahead!

Business Raises Living Standards

Only 35 years ago there was but one insurance policy-holder to ten people—today, every other person in America has a life insurance policy.

There were only 1000 radios in 1920—in 1935, the number of families with radios was 22,869,000.

In 1913, there was one bathtub to ten people in American towns and cities—fifteen years later there was one to every five people.

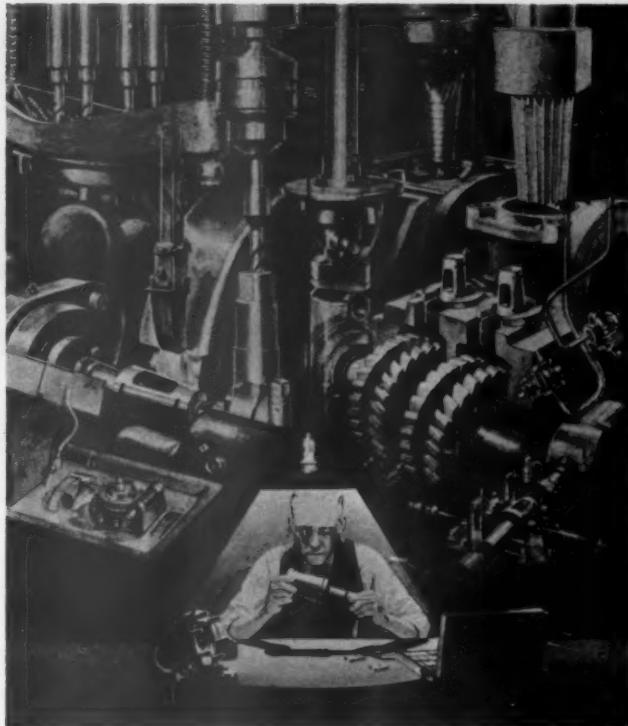
Thus have people enjoyed an increasing abundance of things in America, a business nation.

This advertisement is published by
NATION'S BUSINESS

—a magazine devoted to interpreting business to itself, and bringing about a better understanding of the intricate relations of government and business. The facts published here are indicative of its spirit and content. Write for sample copy to NATION'S BUSINESS, WASHINGTON, D. C.

This

**REMENDOUS
TRIFLES
make a
NORDSTROM
VALVE**



Built in the world's most modern plug valve plant,
equipped with specially-designed machinery.

The only valves that meet every major valve need.
Sizes, $\frac{1}{2}$ " to 30". Working pressures up to 5,000
pounds.

MERCO NORDSTROM VALVE CO.

A Subsidiary of

PITTSBURGH EQUITABLE METER CO.

Main Offices: Pittsburgh, Pa. *Branch Offices:* New York City,
Buffalo, Philadelphia, Columbia, Memphis, Atlanta, Chicago,
Kansas City, Tulsa, Houston, Los Angeles, Oakland. Canadian
Representatives and Licensees: Peacock Brothers, Ltd., Univer-
sity Tower Building, Montreal, Quebec.

NORDSTROM
Lubricated **VALVES**

*Patented
"Sealport"
Lubrication*



Surveys show that too many steam tables consume more fuel than needed! In almost every case savings were made by replacing modern tables equipped with Robertshaw thermostats—or by installing thermostats on the tables in use.

Cut your costs WITH
ROBERTSHAW STEAM TABLE THERMOSTATS



Stop the waste that's going on at your steam tables! Check up and see how Robertshaw thermostats will cut fuel bills. Your gas company or equipment dealer will gladly make the survey.

Robertshaw-equipped steam tables actually save their cost in fuel reduction alone! That's the experience others have had. That's the difference you will have. In addition, they prevent overcooking; loss of flavor; food spoilage.

Every day you delay means money out of your pocket. Ask your gas company or equipment dealer today.

ROBERTSHAW THERMOSTAT CO.
YOUNGWOOD, PA.

ROBERTSHAW THERMOSTAT
FOR STEAM HEATED AND GAS FIRED STEAM TA
Cost So Little—Save So Much

wasted heat
means
wasted \$

"Stop that waste of heat!" That's the warning that Robertshaw advertising flashes to your customers. "Stop it with Robertshaw thermostats" is the advice it gives. "Have an equipment survey made in your kitchen" is the action it urges—over and over again.

Install steam tables equipped with Robertshaw thermostats or convert those in use with Robertshaw controls available for that purpose.

The savings made by such installations have often resulted in sales of additional new equipment. In many cases complete kitchen modernization has eventually followed.

ROBERTSHAW THERMOSTAT COMPANY
Youngwood, Penna.

Your customers see heat going to waste over their tables. They see it again in Robertshaw advertising. They see it again in Robertshaw steam table thermostats. Let's stop that waste. Cash in on this simple, emotional campaign. It's running now in your customers' trade papers.

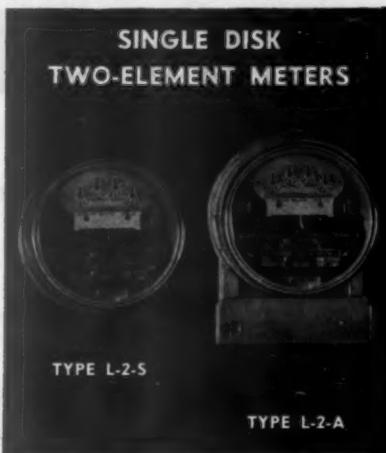
ROBERTSHAW steam table THERMOSTATS
Cost so little — save so much!

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

This p

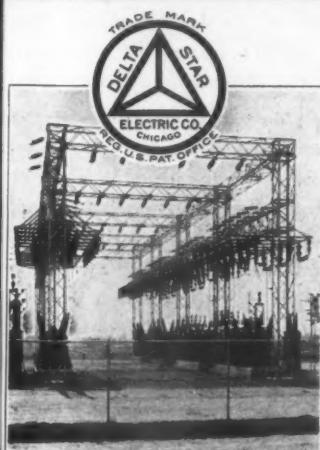
SANGAMO TYPE L-2 METERS

The Type L-2 two-element meters comprise two complete electro-magnetic elements driving a single disk. They are designed for modern "A" and "S" mountings, thus combining convenience in installation with a minimum of space requirements. Electrical characteristics meet all the requirements for modern meter accuracy and performance.



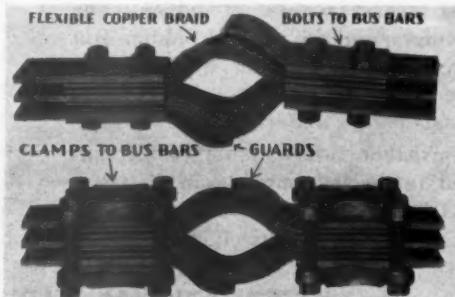
Modern Meters for Modern Loads!

SANGAMO ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS



OUTDOOR SUBSTATIONS
FOR ALL VOLTAGES

EXPANSION JOINTS



FOR FLAT AND ROUND CONDUCTORS
FOR ALL AMPERE CAPACITIES

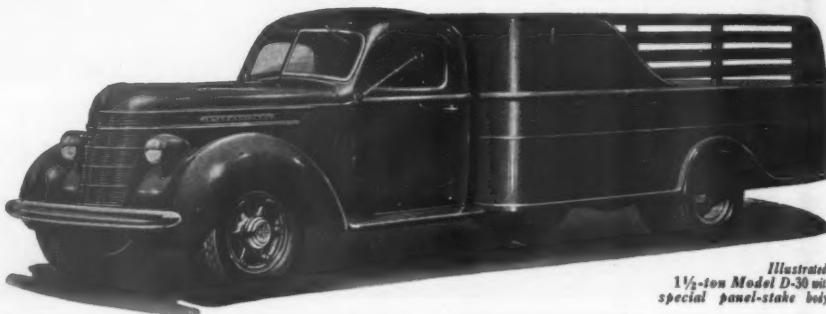
Delta-Star  **Electric Co.**

2400 BLOCK, FULTON STREET, CHICAGO, ILL.

FIRST SHOWING

of the New INTERNATIONALS

*International Harvester presents a great new line
of trucks—a major news story for the transportation
world—a personal news item for every user
of trucks!*



*Illustrated:
1 1/2-ton Model D-30 with
special panel-stake body.*

HERE is the first announcement of the new International Trucks in the gleaming metal dress of today and tomorrow. Here are *eye-values* that tell their own story, ultramodern styling to please every owner and driver, your customers, and the general public. But *eye-values* are not the whole story; more important, in these new trucks, are *new values underneath the surface*.

Consistent International policy, adhered to through more than 30 years of ALL-TRUCK manufacture, is your guarantee that an entirely new beauty

of exterior in International Truck brings also advanced engineering throughout the mechanical product.

New standards of utility and performance are offered you in every model of this new line, in sizes ranging from the Half-Ton unit up to powerful Six-Wheelers. The new International Trucks are at your service on display at International dealer and branch showrooms. Folders describing sizes and styles used in your own hauling work will be sent on request.

INTERNATIONAL HARVESTER COMPANY

(Incorporated)

606 So. Michigan Avenue

Chicago, Illinois

INTERNATIONAL TRUCKS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

The KISCO "AIRISTOCRAT" DEFLECTO

Its Beauty Is Only Exceeded By Its Utility



A newly styled DEFLECTO with the proven DEFLECTO Fan built into a beautifully designed Chandelier. Ideal for Banks, Clubs, Cocktail Rooms, Dining Rooms, Restaurants, Hotels, Funeral Parlors, and Stores.

The Kisco DEFLECTO is the last word in QUIET, EFFECTIVE Air Recirculating and Cooling. This patented fan draws the cool air from the floor and quietly recirculates it over a wide area . . . no blasts or annoying drafts . . . more effective than several old style paddle fans.



To Make Mechanical Air Conditioning Effective You Need Recirculation

If air is kept in motion in cooled rooms its effect will be more readily felt . . . and low temperatures are not essential for comfort. Recirculation will increase the efficiency and reduce the operating cost of air cooling equipment.

Low Cost Summer Comfort For Your Customers

The Kisco Line of Fan Equipment is complete and includes Air Movers, Exhausters, and Recirculators. Your Free Copy of "Breezy Tales of Summer Sales" will bring complete details.



The Kisco "Homilator" For Attic Ventilation

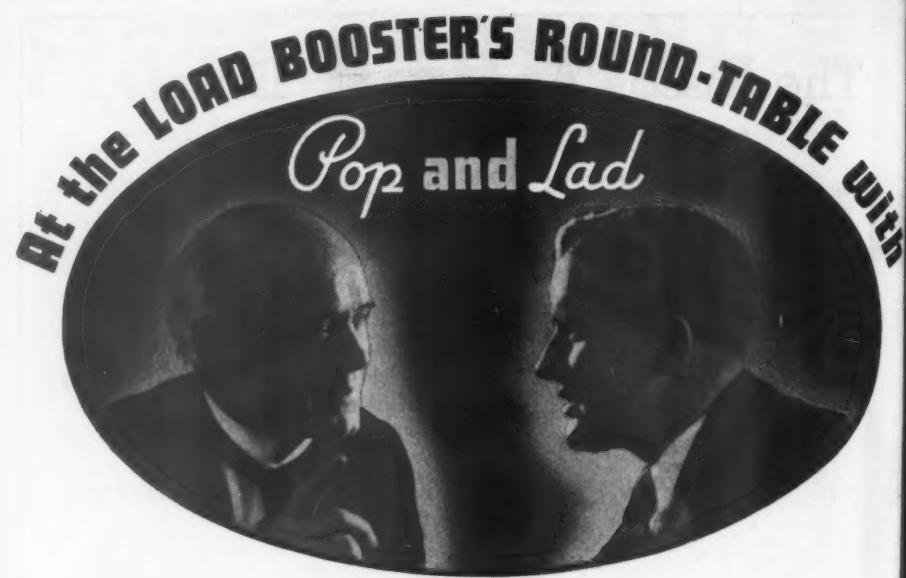
Quiet, effective circulation is guaranteed with this exclusively designed Kisco Home Cooler. Five models with capacities of 5400 to 14,000 C.F.M. to choose from. Arrange to secure your share of this business.

KISCO COMPANY, INC.

4414-18 W. PAPIN ST.



ST. LOUIS, MO.



On the docket for today
BOATS, BARGES, BATTLESHIPS

"Take this arc welded tanker, Lad. Her dead weight is 12,800 tons. If riveted, she would weigh 14,300. That's 1500 tons extra carrying capacity for her owners—1500 tons of bonus cargo every trip she makes. Wouldn't you specify arc welded construction if you knew that you could get that much more revenue for your money?"

"You know me, Pop. I'd use arc welding for everything that floats (except soap). Anyone would if they just knew the facts. So let's start a Cargo Booster Club and make ship owners more conscious of the pay-load. Then our ship building friends will turn Load Booster with a warmth excelled only by the heat of the welding arc."

Free Arc Welding Instruction for Power Salesmen. For particulars, get in touch with our main office in Cleveland, Ohio. YY-390.



Every pound of electrode requires 1.75 kilowatt-hours. The average welder uses 5,000 to 10,000 lbs. of electrodes per year.

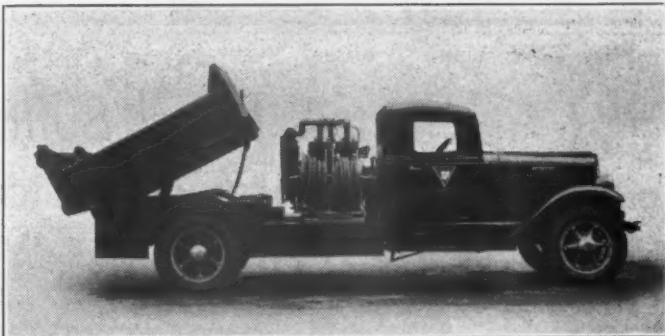
No. 25 of a Series

THE LINCOLN ELECTRIC COMPANY

Largest Manufacturers of Arc Welding Equipment in the World

CLEVELAND, OHIO

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



DAVEY Compressor Trucks

WILL CUT YOUR MAINTENANCE COSTS

Because Davey Compressors take their power from the truck engine, they require only about one-third of the truck capacity. The rest may be used in a variety of ways in handling maintenance work.

So you have a dual-purpose unit, which may be used full time, either as a truck or as a compressor. You do not need a second truck to carry a compressor to the work.

Some Distinguished Owners:

Boston Consolidated Gas Company
New York Power and Light Corporation
Michigan Bell Telephone Company
Iroquois Gas Corporation, Buffalo
City of Syracuse, N. Y., Div. of Water
Connecticut Light and Power Company

Also, because compressed air is always available, your men will use time-saving air tools to do many smaller jobs which would otherwise be done at much greater expense by hand.

Davey truck-driven compressors are thoroughly proven in six years hard service. Let us tell you more about them.

DAVEY COMPRESSOR CO., Inc.
KENT, OHIO

An Invitation

... To participate in the very tangible profits and benefits enjoyed by Utilities for whom the Silvray "Multiplex" Processing Plan for Better Street Lighting is put to work.

... To investigate thoroughly the features of the Plan. To draw, if you desire, upon our facilities for the making of a street lighting survey and the formulation of recommendations.

We welcome your inquiry.

- SILVRAY "MULTIPLEX" Processing is a simple, proven means of increasing effective street illumination from 30 to 50 percent, without change in existing equipment—at very little additional cost.

"BACKED BY 59 YEARS STREET LIGHTING EXPERIENCE"



SPECIFICATIONS

<i>Standard Lamps, Size</i>	<i>1000 Watt T-24 Bipost</i>
Luminaire No. (Available with stem-hanger only)	A-581
Diameter of Bowl	21"
Standard Suspension:	
Top of Bowl to Ceiling	36"
Overall Length	43"
Permaflector No.	B-507
*Standard Finish	Roman Silver
Shipping Weight (One Luminaire Packed)	23 lbs.
Code	AFIAWON
Price each F.O.B. Irwin, Pa.	\$23.00

**On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (bush finished in polished aluminum) at a small additional charge.*

On special order may be had finished in Lustroflex gun metal, antique bronze or light bronze (bush finished in polished aluminum) at no additional charge.



A Load Builder That Will Make Friends For You

• THE BIPOST

(1000 WATT T-24)
TOTALLY INDIRECT

LUMINAIRE

HERE is a new, small diameter, permaflector equipped luminaire, developed by "Pittsburgh" engineers to provide high intensity indirect lighting for rooms where ceilings are low or where larger units are impractical.

It is modern and distinctive in appearance and scientifically designed to control 1000 watts of light in the most efficient and satisfactory manner.

Its shallow bowl—a type much in vogue today—serves only as an ornamental enclosure for the Permaflector of smooth glass which controls the light.

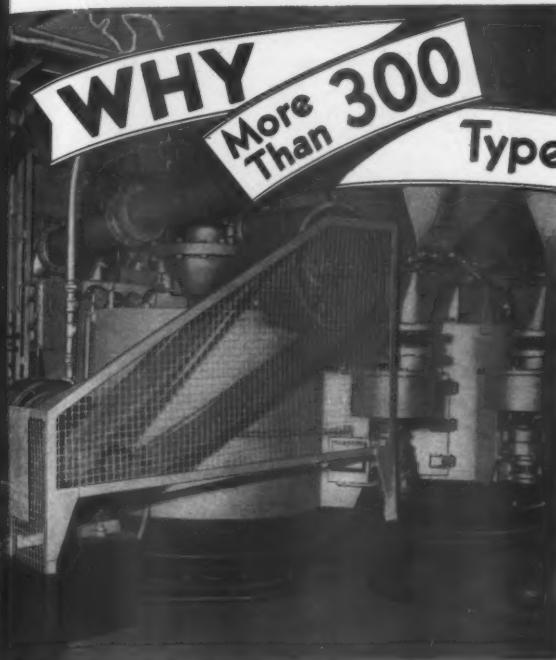
The fixture is equipped with a unique dual bush concealing the socket and lamp neck, ingeniously ventilated. No exposed vents mar its design.

Stranded nickel wire with 40 mil. wall of asbestos insulation is used in this fixture, additionally insulated at the socket by refractory tubing.

Many of your customers are prospects for luminaires of this type and you can unhesitatingly recommend this unit which is backed by more than 21 years of successful lighting experience.

Write for details.

**PITTSBURGH
REFLECTOR COMPANY**
OLIVER BUILDING PITTSBURGH, PA.



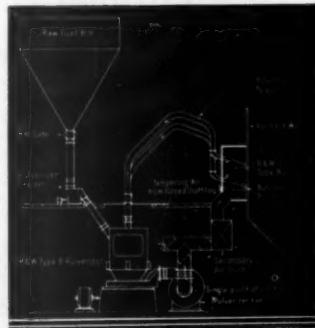
**Have Been
Bought
for
Direct /
Firing!**

B&W Pulverizers having a total capacity of over 2600 tons of coal per hour have been bought in the United States alone for the direct firing of boilers. All these pulverizers are of the same type and many of them have been in service for periods of one to seven years and have proved conclusively that they—

- Can be depended upon to give reliable service,
- Can handle coal of any grade or moisture,
- Respond readily to load changes,
- Maintain fineness,
- Maintain capacity,
- Provide a rich starting mixture,
- Are not damaged by tramp iron,
- Are adapted to fully automatic operation.

These and other reasons why the Type B Pulverizer is the logical choice for direct-firing pulverized-coal systems are fully discussed in Bulletin G-19, which also presents the many advantages of the B&W Direct-Firing System. For your copy simply return the coupon.

THE BABCOCK & WILCOX COMPANY
85 LIBERTY STREET, NEW YORK, N. Y.



THE BABCOCK & WILCOX COMPANY
85 LIBERTY STREET
NEW YORK, N. Y.

Please send..... without obligation..... a copy of the "B&W Direct-Firing System"

Name.....	.....
Company.....	.....
Street.....	.....
City.....	..... State.....

BABCOCK & WILCOX

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



***Whether You Buy A Tankful Of Gasolene Or
A Carload Of Oil—You Can Be Sure That
CITIES SERVICE PRODUCTS Are Unsurpassed!***

THE QUALITY of Cities Service gasolines, oils and greases is guarded every step of the way from the oil well to you. For Cities Service is a completely integrated unit in the oil industry, engaged in all phases of petroleum operation . . . production, transportation and refining. The finished products, backed by 74 years of refining experience, reach you through 15,000 reliable outlets. The Cities Service emblem is your guarantee of dependable products and efficient, courteous service.

CITIES SERVICE



Serves A Nation!

The

"MULSIFYRE"

SYSTEM

Newest Development By

GRINNELL

For Extinguishing Oil Fires

In line with the best traditions of the Grinnell Company
in the science of fire protection engineering.

In Use By
PUBLIC UTILITY COMPANIES THROUGHOUT THE WORLD
Among which are the following:

NEW YORK EDISON COMPANY East River Power House — Hell Gate Station

BROOKLYN EDISON COMPANY Hudson Avenue Station — King's Highway Substation

PHILADELPHIA ELECTRIC COMPANY Paschal Street Substation

DETROIT EDISON COMPANY Trenton Channel and Marysville Substations

PENNSYLVANIA ELECTRIC COMPANY Seward Station

WILLIAMSBURG POWER PLANT CORPORATION Brooklyn, N. Y.

LONDON POWER COMPANY, LTD. Battersea Power Station and Six Other Stations

CENTRAL ELECTRICITY BOARD OF GREAT BRITAIN Three Stations

CIE PARISIEN DE DISTRIBUTION D'ELECTRICITE Rue De Vienne and Rue De Rocher Stations, Paris

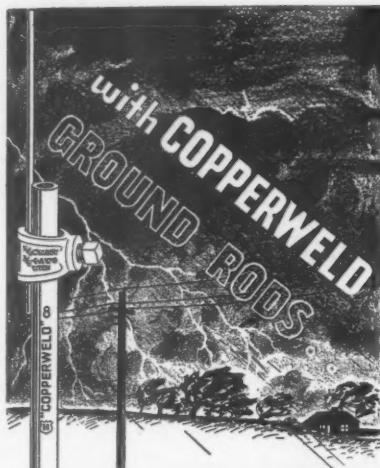
RIO DE JANEIRO TRAMWAY LIGHT & POWER CO. LTD. Three Stations in Brazil

And more than thirty other companies in Brazil and Canada and in England, France, the United States and Canada

The Grinnell Company welcomes correspondence on this form of fire protection. Without obligation, our engineers will prepare plans and estimates.

GRINNELL "MULSIFYRE" SYSTEM

GRINNELL COMPANY
 EXECUTIVE OFFICES PROVIDENCE, R. I.
 BRANCH OFFICES IN PRINCIPAL CITIES



PROTECTIVE GROUNDS ARE BETTER EQUIPPED TO DO THEIR PART

Installed out of sight, where periodic inspection is impractical, Copperweld Ground Rods and Grounding Clamps insure the dependability of your protective grounds.

Although Copperweld Ground Rods offer the permanence of copper, because of their rust-proof copper exterior, they are nevertheless theft-proof. Also, they can be driven quickly, without bending, as the steel core of these rods makes them extremely rigid.



**Specify Copperweld Rods
and Clamps—and guard
against substitutions**

COPPERWELD STEEL COMPANY
GLASSPORT, PA.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

What are the FACTS on ELECTRIC RANGES?



HOW long do different makes of range take to boil two quarts of water? What is the heat loss from the oven when roasting a leg of lamb? Will the surface units of the ranges you sell or recommend show satisfactory life? An E. T. L. Test Report will answer these and many other questions.

For forty years now, Electrical Testing Laboratories has been serving utilities, helping them to *know by test* about the products they buy, use, sell or service. They tell us that this has actually brought savings in operation. May we help you?

Write for a copy of the new booklet which explains our services.



**ELECTRICAL
TESTING
LABORATORIES**
80th Street and East End Avenue
New York, N. Y.

Let's look at the records...

*The past is a clear picture—the present an open book
—the future a lighted path—with Taylor Power Recorders. Use them to check waste and high power costs*



Modern Taylor Recording Thermometer. For applications within minus 100° and plus 100° F. Fine-appearing, durable Metal finish. Face- or flush-mounted cases. Dials 4-in. Temperature recorder in three types—Mercury-, air-, and Vapor-actuated. Mercury type uses Taylor Automatic Temperature Compensator to compensate for temperature changes through which tubing passes and to assure a reading of the correct bulb temperature.

WHAT happened last week—last month—yesterday? If temperature, or pressure, has any bearing on the matter, you can find out quickly from the accurate records written by Taylor Power Plant Recorders.

Through their charts these Recorders show past errors and guard today's revenue and profits against waste and high power costs. They are specially designed for use in helping you produce and supply power most economically and efficiently. They protect against temperature and pressure "leaks" that may be unsuspected or hidden now.

Taylor Recording Thermometers have modern refinements that assure greater accuracy and durability. With an improved mechanism they have maximum sensitivity and accuracy without sacrificing in any degree the life you should expect under severe conditions of service. They are constructed so as to serve efficiently and economically. Their accuracy saves money; their durability pays dividends.

Let a Taylor representative discuss any temperature problems with you, then put a Taylor Recorder to any test you wish. You will find that it measures up fully to your needs. That is what our tests show and what many plants have proved. For complete details on Taylor Recorders, write for a special Power Plant Catalog. Address, Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London.

Taylor

Indicating Recording • Controlling

TEMPERATURE, PRESSURE and
FLOW INSTRUMENTS



COMPLETE IN ITSELF!

NO EXPENSIVE AUXILIARY EQUIPMENT

• Self-contained, self-powered and easily packed in the back of a car or the corner of a truck, the BARCO Portable Gasoline Hammer can be taken to any job quickly—cheaply—ready for work when it arrives. Without the aid of expensive auxiliary equipment a BARCO drills, digs, cuts asphalt . . . drives test rods . . . or tamps backfill. No demolition job is too tough. Temperature nor weather affect the operation. Ask for particulars.

BARCO MANUFACTURING COMPANY
1803 Winnemac Avenue,

Chicago, Ill.



This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



PIONEERS IN
METER PROGRESS

AS
ADVERTISED
IN
1899



YESTERDAY TODAY TOMORROW



1899 CASING
MODERN PARTS

Trident and Lambert Water Meters have served . . . will serve . . . as fine yet rugged "instruments of precision" for the accurate measurement of water under all conditions. Through the *interchangeability* of their parts, these meters, even though installed in a Yesterday of 30 years ago can . . . Today . . . be made as good, perhaps better than new, for long years of service in a Tomorrow that stretches ahead without the shadow of obsolescence or deterioration to lessen the initial value of your investment. A type for every purpose. Neptune Meter Company (Thomson Meter Corp.), 50 West 50th Street (Rockefeller Center), New York City . . . also . . . Neptune Meters Ltd., 345 Sorauren Ave., Toronto, Canada.

6 MILLION
MADE AND
SOLD

TRIDENT

AND LAMBERT WATER METERS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

INDEX TO ADVERTISERS

	Page
A	
Aluminum Company of America	42
American Engineering Company	39
American Street Illuminating Company	69
Art Metal Construction Company	82
B	
Babcock & Wilcox Company, The	71
Barco Manufacturing Company	76
Black & Veatch, Consulting Engineers	81
Bristol Company, The	45
Burnham Boiler Corporation	34
Burroughs Adding Machine Company	13
C	
Carter, Earl L., Consulting Engineer	81
Cheney, Edward J., Engineer	81
Chevrolet Motor Company	22
Cities Service Company	72
Cleveland Tractor Company	79
Cleveland Trencher Company	17
Combustion Engineering Company, Inc.	15
Commonwealth Mfg. Corp.	25
Connally Iron Sponge & Governor Company	40
Copperweld Steel Company	74
Crescent Insulated Wire & Cable Company, Inc.	55
D	
Davey Compressor Company, Inc.	69
Davey Tree Expert Company, The	58
Delta-Star Electric Company	65
Distaphone Sales Corporation	61
Dictograph Products Company, Inc.	37
Ditto, Inc.	47
E	
Electric Storage Battery Company, The	25
Electrical Testing Laboratories	74
Elliott Company	50
F	
Ford, Bacon & Davis, Inc., Engineers	81
Foster Wheeler Corporation	11
Frigidaire Corporation	59
G	
General Electric Company	Outside Back Cover
General Motors Truck & Coach Division	33
Goodrich, B. F., Company, The	3
Grinnell Company, Inc.	73
Guth, Edwin F., Company	46
H	
Hammermill Paper Company	7
Hays Manufacturing Company	58
Hoosier Engineering Company	21
I	
International Business Machines Corporation	23
International Harvester Company, Inc.	66
J	
Jackson & Moreland, Engineers	81
Jensen, Bowen & Farrell, Engineers	81
Johns-Manville Corporation	43
Johnston & Jennings Company, The	40

(Concluded on Page 80)

Tough going for the men is easy going for a Cletrac



Stringing cable is no job for a fair-weather outfit. The going's tough, as any lineman will tell you . . . uphill and down, through mud and swamp, across the country as nature made it without benefit of trail or road.

It's a job for a Cletrac . . . the crawler tractor that's built to smile at hard going . . . with the traction, the balanced design, the power, and stamina to get in and out of the tough spots.

With controlled differential steering, Cletracs are more easily controlled, surer footed in tight places, safer on the hills.

Investigate. There are fifteen models, from 22 to 94 horsepower, either gasoline, tractor fuel, or Diesel powered, and with a complete line of working equipment.

THE CLEVELAND TRACTOR COMPANY • CLEVELAND, OHIO

Cletrac Crawler Tractors

The only tractors with controlled differential steering that keeps both tracks pulling at all times . . . on the turn as well as on the straightaway.

INDEX TO ADVERTISERS (Concluded)

	Page
K	
Kerite Insulated Wire & Cable Company, Inc., The	35
Kinnear Manufacturing Company	41
Kisco Boiler & Engineering Company	67
Klein, Mathias & Sons	25
L	
Lincoln Electric Company, The	68
Lindemann, A. J. & Hoverson Company	30
Link-Belt Company	48
M	
Merco Nordstrom Valve Company	63
Mercoid Corporation, The	24
N	
Nation's Business	62
National Carbon Company, Inc.	31
Neptune Meter Company	77
Newport News Shipbuilding & Dry Dock Company	44
O	
Okonite Company, The	5
P	
Pennsylvania Transformer Company	57
Pittsburgh Plate Glass Company	27
Pittsburgh Reflector Company	70
Power Transmission Council	28
Pyrene Manufacturing Company	49
R	
Ray-O-Vac Company	61
Remington-Rand, Inc.	9
Republic Steel Corporation	53
Ridge Tool Company, The	Inside Back Cover
Riley Stoker Corporation	18
Robertshaw Thermostatic Company	64
Royal Typewriter Company, Inc.	16
S	
Safety Gas Main Stopper Company	58
Sanderson & Porter, Engineers	81
Sangamo Electric Company	65
Silex Company, The	Inside Front Cover
Socony-Vacuum Oil Company, The	60
Spooner & Merrill, Inc.	81
T	
Tagliabue, C. J., Mfg. Company	30
Taylor Instrument Companies	75
Titan Valve & Manufacturing Company, The	29
V	
Victor Insulators, Inc.	30
Vulcan Soot Blower Corporation	44
W	
Wagner Electric Corporation	26
Walker Electrical Company	61
West Bend Aluminum Company	19
Williamsport Wire Rope Company	36

PROFESSIONAL DIRECTORY

This page is reserved for engineers and engineering concerns especially equipped by experience and trained personnel to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, design and construction. * *

DESIGN
CONSTRUCTION
OPERATING COSTS

Ford, Bacon & Davis, Inc.
Engineers
VALUATIONS & REPORTS

CHICAGO PHILADELPHIA NEW YORK DALLAS WASHINGTON

RATE CASES
APPRaisALS
INTANGIBLES

SANDERSON & PORTER
ENGINEERS
VALUATION DEPARTMENT
APPRaisALS AND RATE QUESTIONS

CHICAGO NEW YORK SAN FRANCISCO

BLACK & VEATCH
CONSULTING ENGINEERS

Appraisals, investigations and reports,
design and supervision of construction
of Public Utility Properties

4706 BROADWAY KANSAS CITY, MO.

JACKSON & MORELAND
ENGINEERS

PUBLIC UTILITIES—INDUSTRIALS
RAILROAD ELECTRIFICATION
DESIGN AND SUPERVISION—VALUATIONS
ECONOMIC AND OPERATING REPORTS

BOSTON NEW YORK

EARL L. CARTER
Consulting Engineer

REGISTERED IN INDIANA AND NEW YORK

PUBLIC UTILITY
VALUATIONS AND REPORTS

814 Electric Building Indianapolis, Ind.

JENSEN, BOWEN & FARRELL
Engineers

Ann Arbor, Michigan

Appraisals - Investigations - Reports
in connection with
rate inquiries, depreciation, fixed capital
reclassification, original cost, security issues.

EDWARD J. CHENEY
ENGINEER

Public Utility Problems

61 BROADWAY NEW YORK

SPOONER & MERRILL, INC.
Consulting Engineers

Design—Supervision of Construction
—Reports — Examinations — Valuations

20 North Wacker Drive Chicago, Ill.

AIRLINE
THE NEW GENERAL OFFICE DESK
THAT MODERNIZES ANY OFFICE



Business is modernizing and expanding. Offices everywhere are installing more efficient equipment, new and better methods. Leading the parade is the new, modern, general office desk, the Airline.

The all-steel construction, advanced utility features, reasonable price, with the plus value of its new unique beauty, make the Airline the choice of leading offices.

Utility features include: Convenience tray for stenographic supplies; series of "In-Desk" trays with compartments for letter size and legal size papers. Top tray may be lifted out and used as a desk-top tray. Adjustable footings under the island bases, insure desk being level despite uneven or warped floors. Provision is made for concealed wiring.

Models of Airline Desks are available for all office work. Tables to match the Airline desks in appearance are made in three sizes. Complete Airline Desk catalog gladly furnished on request.



Style 1760 FB—General Office Desk Model.



Style 1755 TW—Drop-head Typewriter Desk Model.

Art Metal



ART METAL CONSTRUCTION COMPANY, JAMESTOWN, N.Y.

E R

This

MAKES **1** MAN AS STRONG AS

10



This **RIDGID** Compound Leverage Wrench unscrews 'em easily . . . no matter how frozen.

• Here's a wrench that will pay for itself and show a profit on your first tear-down job. Fittings may be rusted and frozen but they have to yield to the 10-fold compound leverage of this remarkable **RIDGID**.

It makes one man into several, whether he's loosening or tightening either pipe or fittings. No more pipe on a wrench handle and a bunch of men sweating over it. No more loss of smashed off fittings.

Attach the trunnion, slap the wrench on pipe or fitting—and pump the handle. Nothing moves but the part the jaws grasp.

Should be in every kit. Comes in 4 capacities—2", 4", 6" and 8". Ask your Jobber.

E RIDGE TOOL COMPANY, ELYRIA, OHIO, U.S.A.

RIDGID

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



COMFORT IN KILOWATT-HOURS

ONE of the most novel—and perhaps one of the most interesting—developments of the last year is the General Electric comforter—an electrically heated bed cover that relieves the body from the strain of adjusting itself to changes in temperature and thus contributes to healthful, restful sleep.

"Interesting," you say, "but why important?" Simply because it gives the customer a new kind of personal service, and it represents an inherently good use of off-peak power—equivalent, during winter months, to a 100-watt lamp burning from bedtime to breakfast.

We have a hunch that the popularity of this new device may soon build up in the same proportions as that of soil-heating equipment, for example, which required last year (on the basis of total G-E

equipment installed) 10,000,000 kilowatt-hours. A few thousand electric comforters on your market and that is not very many as appliances go, but some day rank with your most desirable popular load builders.

Electric appliances that are used both *at night* are not *widely used*, and those that are *used* are not generally used *day and night*. No practical off-peak uses are therefore an easy thing to develop. We gain assurance from the fact that quite often one of these developments starts and takes hold. The electric comforter may be one of them. If it is, then we'll both benefit, for you as a marketer of electric service and we as the manufacturer of electric apparatus are equally interested in the same result—the further development of the electrical industry, which means more business for all of us.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

GENERAL  **ELECTRIC**